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The Wisconsin Medical Journal

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By A. S. Jackson, M. D.
PROSTATECTOMIES AND RESECTIONS
By H. E. Kasten, M. D.
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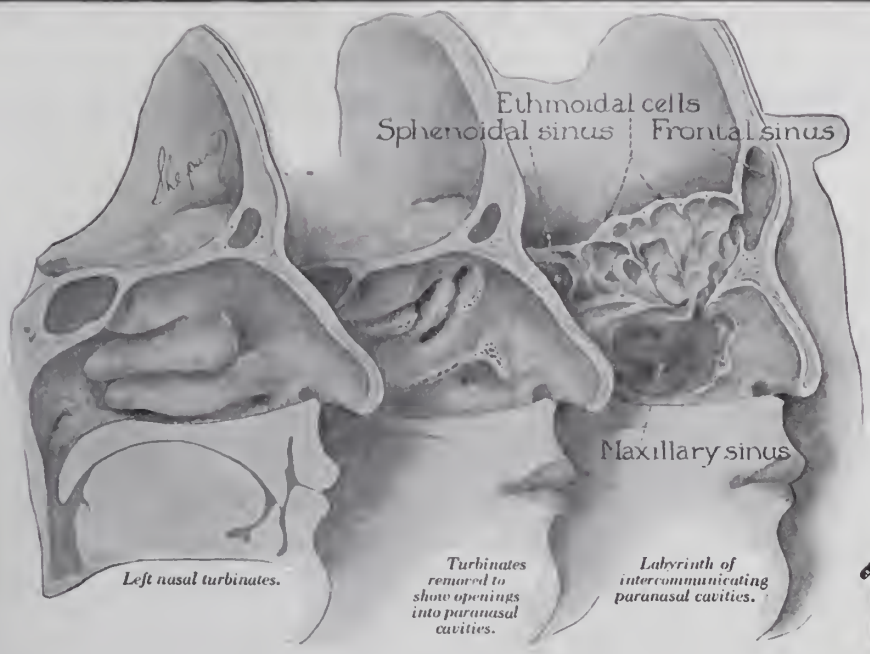

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(1) 1924, Commercial Fruit and Vegetable Products, W. C. Cruess, McGraw-Hill, New York

(2) 1924, A complete Course in Canning, The Canning Trade, Baltimore

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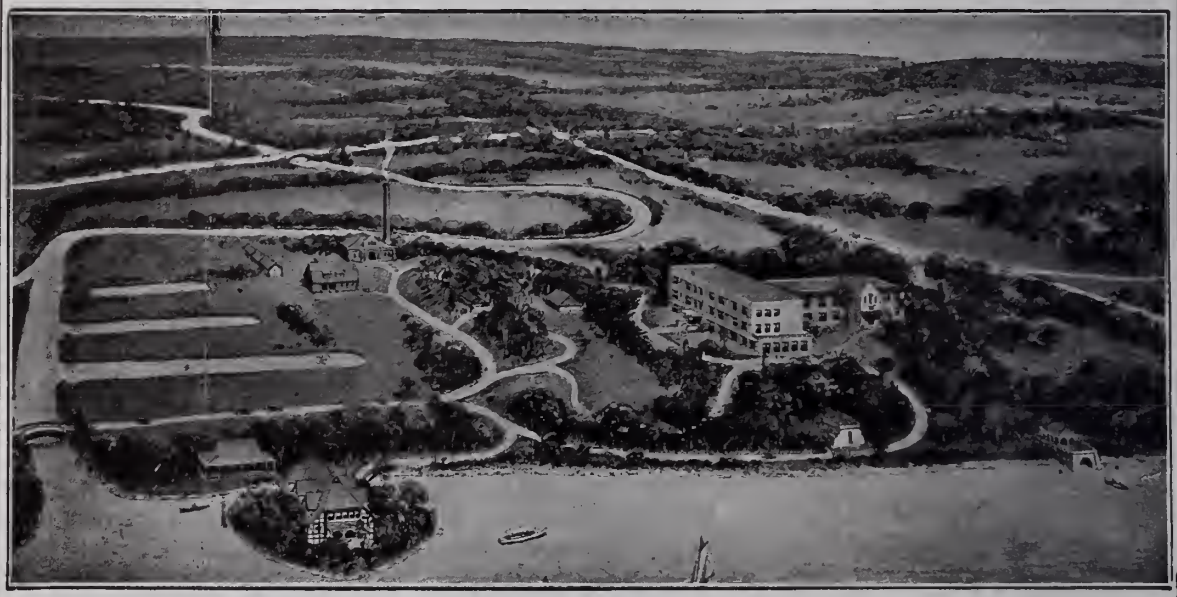

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THE WISCONSIN MEDICAL JOURNAL

Volume XXXV JANUARY, 1936 Number 1

The Prevention of Goiter in Wisconsin; A Challenge to the Medical Profession*

By ARNOLD S. JACKSON M. D.
Madison

THE 1934 census showed that there are approximately 552,312 school children in Wisconsin. A study of 1600 of these children in Milwaukee, Madison and Fond du Lac indicates that probably one out of every two girls and one out of every five boys of high school age in the state either has goiter or a tendency to thyroid enlargement. This survey is based on a careful examination by the State Medical Society committee for the study and prevention of goiter.

These figures may prove startling to those not especially concerned with this subject, yet they only reiterate reports from other states where similar surveys have been prepared. For example, Marine and Kimball in their report of the school children in Akron, Ohio, found that 56.41 per cent of the girls between the ages of 10 and 20 had thyroid enlargement. A study in Cincinnati by Olesen of 47,493 children 6 to 17 years of age showed abnormal thyroids in 39.8 per cent of the girls and 26.6 per cent of the boys. In an examination of 31,612 children in Michigan, Olin found similar conditions in 47.2 per cent of the children.

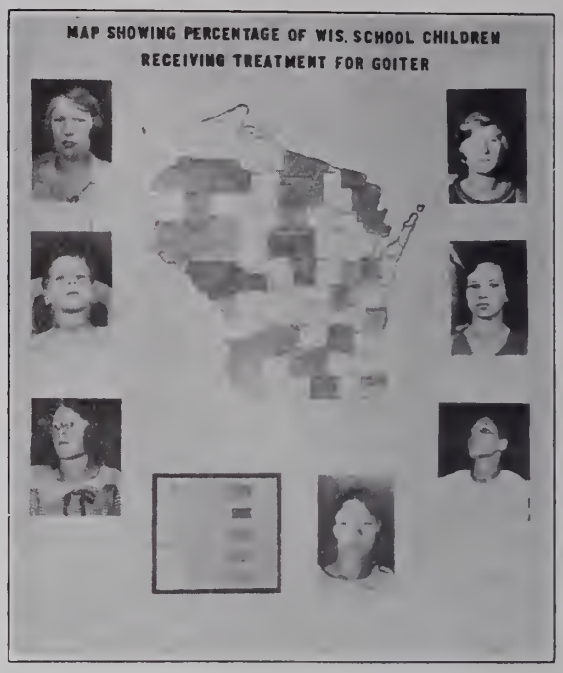
A still greater prevalence of goiter was reported in Minnesota where Olesen found that 71 per cent of the girls 5 to 23 years of age showed evidence of goiter.

Previous studies in Wisconsin indicate that the incidence of goiter is as high or higher than that of any state in the Union. In Beloit, Fifield found 80 per cent of the girls in junior high school afflicted. In Menomonie, Gudex found one out of two girls to have enlarged thyroids. Bugbee examined 500 children in Wausau who had signs of goiter. Further reports of goiter surveys will be shown in the slides.

The estimate that one out of every five of the 552,312 school children of Wisconsin or 110,462 show some evidence of thyroid disturbance is probably not far from correct. Is there any greater problem challenging the physicians of Wisconsin than that of the eradication of goiter for all time? The profession has here a wonderful opportunity not only to perform a truly humanitarian task, but also to strengthen its position in the eyes of the public. As individuals we have contributed freely of our time and effort for the public good, yet too often has this been overlooked by the zealous advocates of state medicine. A movement to rid Wisconsin of goiter sponsored by the State Medical Society cannot help but win the support of many friends at a time when such support may prove invaluable.

In order that a plan of goiter eradication might be developed during the past year the state council appointed a committee consisting of Drs. Francis Murphy, Professor of Medicine at Marquette University, M. O. Boudry, City Physician of Fond du Lac and the writer. This committee has so far devoted its effort to determining the incidence of goiter in various localities throughout the state. Also to finding out what prophylactic measures are now in force. The fact is generally recognized that preventive measures were used in several communities throughout the state previous to the depression, but such efforts have now been largely abandoned. Indeed so far as the Committee has been able to ascertain through its preliminary survey, only about five per cent of the

* Presented before 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, September 1935.



552,312 school children, or 27,615, are at present receiving any treatment.

The Committee, therefore, hopes to reawaken the interest of the medical profession in this problem and believes that the physicians should in turn enlighten the people. Through cooperation of the secretaries of the county medical societies we plan to furnish programs and material as a basis for their work. Unless the State Medical Society, through its membership, sponsors this plan and carries it through, its execution will be left to lay supervision as have other medical measures in this country that might better have remained under the direction of the medical profession.

There is little need to reiterate here certain well known and generally accepted views concerning the simple colloid goiter of youth. It is still a debatable question whether iodine deficiency or infection is the etiological factor, but it seems probable that both are important. Opinion is nearly unanimous as concerns prophylaxis, but there is great disagreement as to the mode of administration. Our state board of health has pursued a wise policy in allowing the medical profession to settle this problem.

PROPHYLAXIS

In 1924 iodized salt was introduced in Michigan although not without opposition from the profession. The danger of iodine hyperthyroidism resulting from the use of iodized salt has undoubtedly been exaggerated, Hartsock, DeQuervain and Bircher notwithstanding. I do not recall having seen a case of iodine hyperthyroidism in a child as the result of iodized salt. This form of hyperthyroidism results from the injudicious use of iodine in the presence of adenomatous goiter since the latter is uncommon in children.

The term iodine Basedow as used by Kocher and others is really a misnomer since this condition is not Basedow's disease or exophthalmic goiter but hyperthyroidism induced in an adenomatous goiter by the use of iodine. There are, however, certain objections to the use of iodized salt. It is questionable whether or not the wholesale administration of a drug through grocery stores is advisable. There is no proof to indicate that normal adults, except pregnant mothers, require iodine even in infinitesimal amounts beyond that supplied by nature. There is evidence to show that the long continued use of even small amounts of iodine may initiate hyperthyroidism in a previously

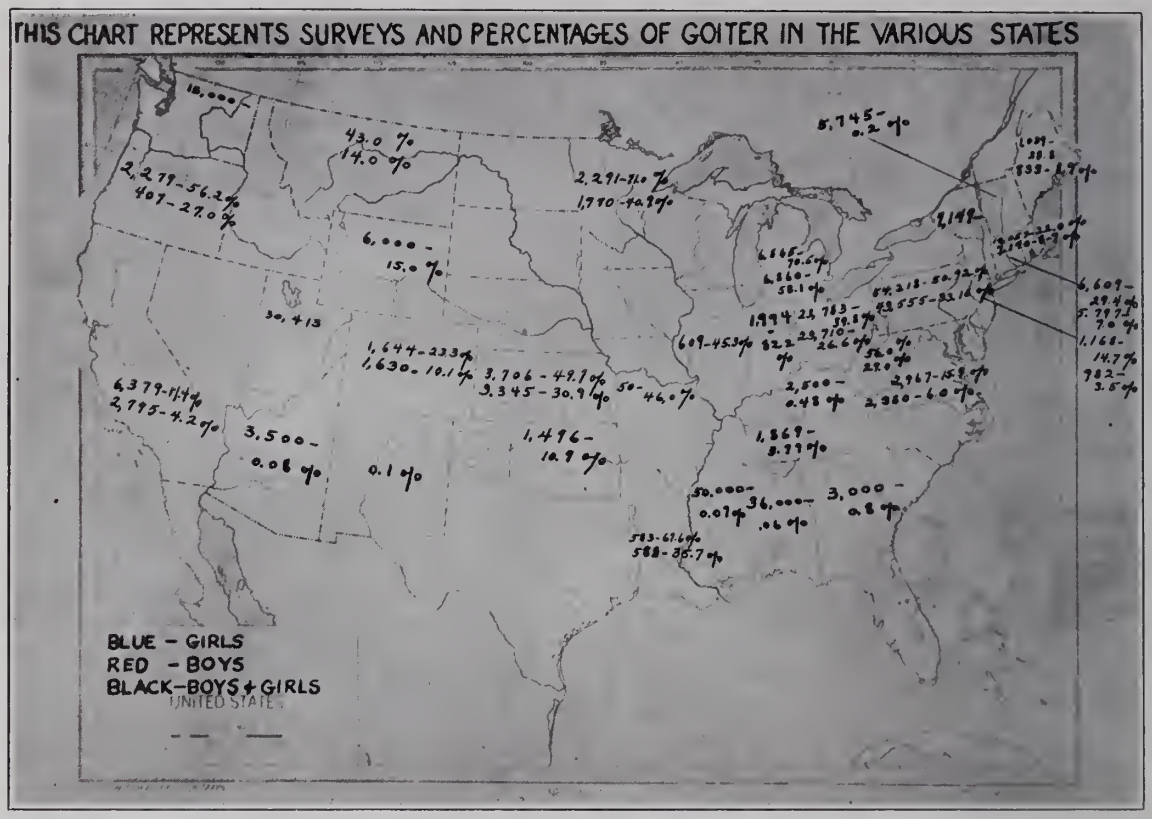
non-toxic adenoma. Moreover, while others may differ, I feel that all adenomatous and colloid goiters have their inception before adult life, so that adult prophylaxis against such goiters is unnecessary. There are no facts to show that exophthalmic goiter may be prevented through the use of iodized salt. Proponents of iodized salt have cited the decrease of thyroid operations, even out of proportion to other surgical procedures in Michigan, as an indication of the benefit to be derived from this method. That this decrease in the number of goiter operations is due to the depression rather than the use of iodized salt is shown in Wisconsin, Minnesota, Nebraska, California and many other states where little iodized salt or other prophylactic measures are used.

While it may be truly argued that iodized salt is a more effective way of reaching a larger percentage of the population, especially the rural, the actual amount of iodine consumed by certain children must be infinitesimal, particularly by those using little salt. It has been stated on a theoretical basis that the actual iodine requirements of the child are but .01 mg. per day to maintain the iodine balance. However, a study of a group of 1,000 children over a period of twelve years has convinced me that practically 2 or even 3 times this amount of iodine, as well as thyroid gland therapy, is required by many children to prevent the development not only of colloid but of adenomatous goiter.

In this group of children, which I have been treating, many of whom have now reached maturity and have children of their own, not a single adenomatous goiter has developed where none was present previous to treatment. Only one child has ever been operated upon and that for an exophthalmic goiter.

One must admit that the danger of iodine hyperthyroidism in adults resulting from the use of iodized salt is certainly small. It is a simple way to treat a large number of children, although in a given case it may not be as effective as the use of a prescribed amount of iodine administered in the form of a chocolate tablet. Because of migration it is difficult to gauge the results of any method of iodine prophylaxis; but the findings in Michigan and in Switzerland, where iodized salt has been used for some years, appear satisfactory and warrant a continuation of this method. However, I feel that if the medical profession of Wisconsin can develop a plan whereby a proper amount of iodine can be given every child over a period of ten years, we shall stand out as an example for other states as well as other countries to follow. If such an idea is not feasible, if we are able to reach only a small percentge of the children, as at present, then we might better advocate iodized salt, and, in cooperation with the State Board of Health, develop a plan for its proper use. If this is not done some one will do it for us and again the profession will have lost a splendid opportunity.

As we study this question during the coming year, our committee will welcome any suggestions you may care to give regarding this project. We shall endeavor to formulate a plan based on your ideas and further studies and present this to the Council in the near future. In the meantime we will supply material and suggestions to county medical societies for furthering an educational campaign for preventing goiter in the people of their communities. For not only must we prevent goiter, but we must check its serious consequences,—cretinism, feeblemindedness and deaf-mutism. These sequelae, so prevalent in the older European and Asiatic goiter areas, are becoming an increasing menace to America. A national survey on cretinism, which I presented in 1934 before the American Society for the Study of Goiter, showed a rapid increase in the incidence of this condition since a report of the first case in 1879 by Jacobi. In the survey which I prepared, records of over 500 cases in this country were compiled and this number was considered but a small proportion of those actually in existence. This study showed that cretinism can no longer be considered as sporadic but rather as endemic in this country, and that cretinism found in the United States differs only in degree from that found in Europe and Asia. When goiter has existed for as many generations in this country as in these older lands then the severity and incidence of cretinism will be similar. For as pointed out by Fodere one hun-



dred thirty-four years ago "goiter is the first degree of a degenerative process in which cretinism is the last step". Stoddard has called attention to the rapidly-increasing incidence of cretinism in Wisconsin and the need of its prevention.

Throughout the nation Wisconsin is looked upon as a foremost state in the development of projects beneficial to mankind. If in the next twenty-five years Wisconsin can practically eliminate goiter and cretinism, she will render her people an inestimable service.

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A Comparative Study of a Series of Prostatectomies and Resections*

By H. E. KASTEN, M. D.

Beloit

THE relief of prostatic urinary obstruction through transurethral resection has been one of the most notable advancements in urologic surgery.

With the passing of time and the accumulation of impartial pertinent data relative to indications mortality and end results, the degree to which this procedure will supplant the well established operation of prostatectomy will be established.

Some proponents of the method in a wave

* Presented before the 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, September 19, 1935.

of initial enthusiasm have created the impression not only among physicians, but among the laity as well, that the procedure is one of a minor character requiring little or no preoperative preparation of the patient and a hospitalization period of a few days only. The manufacturers of resection equipment were quick to use this idea of simple and easy operation as an argument to sell their merchandise. These impressions have undoubtedly led many surgeons without previous urological training, and in many instances general practitioners as well, to set themselves up with the instruments necessary for doing transurethral resections. The public, having received the impression that the operation is a trivial one, is shopping around to find the operator who can turn them out in the least time. More and more general practitioners and surgeons without urological training are doing the operation.

On the other hand, an increasing number of resectionists are teaching that transurethral resection is an undertaking of major proportions and moreover that it calls for the highest type of medical and surgical judgment and that it requires an exact understanding of bladder neck pathology as viewed cystoscopically and an adequate manual dexterity in handling the necessary special instruments. They also teach that the method in the hands of the inexperienced is beset with a multitude of pitfalls.

Then, too, there are those who teach that all types of bladder neck obstruction are amenable to transurethral resection. On the other hand, there are those who would designate certain types of obstructions as suitable for resection reserving the remainder for prostatectomy.

Alcock says that it requires at least 200 resections to give an operator sufficient experience to do a reasonably good resection.

All experienced resectionists warn against hemorrhage and infection as possible dangerous complications in any resection regardless of how skillfully done.

Opposed to this large and growing group of advocates of resection is an equally large group of conservative urologic surgeons and general surgeons who hold that transurethral resection is a bizarre procedure that will not stand the acid test of time. In the opinion of these men total enucleation of the prostatic tissue is the only satisfactory method of handling prostatic enlargement despite a mortality ranging all the way from 15% to 30% in the hands of different surgeons.

That resection has come to stay may be predicted with reasonable assurance. Its exact status will be established only with combined experiences of all types of operators. It will be necessary to know not only the experiences of the experts in large centers but those of the occasional operators in the smaller towns as well.

It is probably safe to state that the major portion of all types of surgery, general and special, is not done in the large medical centers by experts in large clinics, but rather is done by the rank and file of physicians in the smaller communities scattered all over the United States. The experiences of these men are vital factors in evaluating any medical or surgical procedure.

With this idea in mind it was felt that a report of the experience with the cases coming to the Beloit Municipal Hospital for the relief of urinary obstruction due to prostatic hypertrophy would be of some interest. It is with a feeling of great humility that this small number of cases is presented. The only justification of it is the belief that the situation in Beloit is fairly typical of hundreds of communities throughout the United States. A full and free presentation of the facts may add just a little added light to a better understanding of the problem of the present day handling of prostatic cases in country communities. No attempt will be made to evaluate the relative merits of the two procedures and no general conclusions will be drawn. Lack of adequate experience obviously precludes doing so, but the cold, hard facts of the early experiences with resection as contrasted with those of prostatectomy are presented for what they may be worth.

BELOIT EXPERIENCE

This report is taken from the hospital records of 69 cases of prostatic obstruction that came to the Beloit Municipal Hospital for

relief. Of these 69 cases 27 patients came to the hospital to be treated by suprapubic prostatectomy while 42 came with the understanding that they were to be treated by transurethral resection. All cases were treated by members of the Beloit Municipal Hospital Staff.

The age of the patients in the two series closely paralleled. In the prostatectomy series the youngest was 50 and the oldest 87 and the average 70 years. In the resection series the youngest was 50 years, the oldest 91 and the average 69½ years.

The onset of symptoms varied from 1 year to 20 years' duration in the prostatectomy series with an average of 5½ years, while in the resection series the duration of symptoms varied from 6 months to 20 years with an average of 3⅓ years. It is seen that there was a tendency for the patient to come to operation earlier after the onset of symptoms in the resection series.

The degree of obstruction was complete retention in all cases for prostatectomy while in the resection series 23 had complete retention, 17 had partial retention varying from 60 to 540 cc. with an average of 182 cc. One had a persistent suprapubic fistula following a prostatectomy performed 9 months previously and one had suprapubic drain from suprapubic cystotomy. Again it is evident that patients came in for surgical treatment much earlier in the resection group.

The comparative periods of hospitalization are at great variance with the reported cases from other sources in that there was only an average difference of 10 days per patient. The prostatectomy cases had 3 days for shortest stay and 78 days for longest with an average of 29⅔ days. This of course includes 8 deaths who went out of the hospital quicker with an average of 16⅔ days stay. The resection cases had a somewhat shorter period of hospitalization, the shortest being 6 days and the longest 45 days, making an average of 19 days. When we consider the cases that left the hospital alive we find that the average stay in the resection cases was 20⅓ days and in the prostatectomy cases 35½ days.

Complications marked both series. In the prostatectomy series shock and infection resulted in 8 deaths, making a mortality of 29.6%. Details are not noted in the records of these cases. In the resection series there were 4 deaths making a mortality of 9½%. Two cases had several postoperative hemorrhages requiring cystotomy. Three cases had delayed postoperative hemorrhages, one required cystotomy and the other two were controlled by evacuating the bladder and coagulating the bleeding points. Epididymitis occurred in one case only, despite the fact that an epididymectomy had been done. There was temporary incontinence in 3 cases which cleared up completely. One case developed an incontinence at the 14th day which lasted for one week with complete recovery of urinary control. One patient developed a right-sided phlebitis which still gives trouble after one year. One patient developed an anuria following the resection which resisted all therapeutic efforts and the patient died in coma. One had complete bowel obstruction for a week with recovery. One developed bleeding from an old bowel condition. Two had pyelonephritis and two had moderately severe respiratory infections.

The mortality rate is usually accepted as the criterion of the virtues of any surgical procedure. It would seem that the end result should have at least a 50% influence in arriving at a conclusion.

In the prostatectomy series 8 died, one had a permanent perineal fistula following a perineal type prostatectomy, one had a persistent suprapubic fistula following a suprapubic prostatectomy and one has constant pain from contractures of scar tissue and fifteen, or 55%, are symptomatically well.

In the resection series four died, one was resected but it was found that he had a huge prostate and prostatectomy was done later removing a prostate weighing 154 gms. Since this case all patients have had routine urethrograms according to the technic of Alcock and Flocks. These x-ray films have been indispensable in the diagnosis of bladder neck pathology. One patient with a prostatic malignancy had to have a cystotomy because of an intolerant bladder. This man was resected but refuses to have his supra-

pubic tube removed. One patient with a prostatic malignancy was in too poor condition for operation. A suprapubic tube was inserted and the patient was sent home where he died three weeks after leaving the hospital. Two patients have distressing nocturnal frequency and the remaining thirty-two, or 76%, are symptomatically well.

An analysis of the eight deaths in the prostatectomy series reveals that five of these might have been saved with longer pre-operative treatment and longer intervals of drainage. Of the other three cases one died suddenly of embolism, the first day up in a chair, and the other two were human wrecks, hopelessly broken down by age and disease.

DEATH IN RESECTION

The four deaths that occurred in the resection series were not all altogether unavoidable.

Death No. 1. The youngest patient in the series, ninth resection, age 50, BP. 165/125, complete obstruction, resected under 120 mg. novocaine, spinal anesthesia, developed a complete anuria after resection. Serological blood and spinal fluid positive for lues. Despite all efforts to stimulate kidney secretion he died of anuria on the 12th postoperative day. Autopsy revealed a high grade chronic interstitial nephritis, myocarditis and arteriosclerosis.

Death No. 2. Patient, age 69, complete obstruction, in bed previous year for 2 months with heart trouble. Two resections tolerated well and was able to void freely with complete emptying of the bladder. The second day that patient sat up in chair he walked to toilet and died suddenly on way back to bed. This death could probably have been avoided by closer supervision.

Death No. 3. Patient, age 80. This man was advised to have an operation 14 years ago. For the past 6 years he had practiced self catheterization. Because he was no longer able to insert the catheter, and his doctor had trouble too, he decided to have an operation. The patient gradually grew weaker following the resection and died the third postoperative day. This case was hopeless from the first and should not have had any operative procedure as he had been an invalid for the past two years.

Dealth No. 4. Age 68. BP. 150/80, blood urea 35 mg. per 100 cc. Creatin 2.6. Two weeks preoperative treatment. First resection consisted mainly of surface coagulation of the mucous surfaces. Two grams tissue removed from median bar. Despite this very minimal traumatism the patient had several very stormy days with high fever and high pulse rate. The second resection eight days later under spinal anesthesia had to be supplemented with gas. After the operation the patient became almost maniacal, threshing about and babbling incoherently. Huge stupefying doses of morphia were required to quiet him. The second day after the resection, while threshing about, he developed a massive hemorrhage. Efforts to control it were ineffectual and before the patient had lost much blood the clots in the bladder were evacuated and a pack inserted. Despite a blood transfusion and usual supportive treatment the patient died in 8 hours.

CONCLUSIONS

1. The high mortality in the prostatectomy series was due undoubtedly to inadequate and improper preparation of the patient.

2. Transurethral resection had a distinct advantage over prostatectomy in the period of hospitalization although this difference is so much less than those reported from other sources as to constitute a disappointment.

3. The higher per cent of immediate good results of resection is only relative. It remains for the future to determine the permanency of results in these cases.

4. The reduced mortality of the resection series over prostatectomy, while much higher than those reported from other sources, constitutes the one truly encouraging feature of the resection series.

5. Transurethral resection as experienced in this small series has not been free from complications and mortality. Rather it has caused troubled days and sleepless nights in spite of the fact that there were no ruptured bladders, no cut external sphincters, no perforated bladder walls, no torn or perforated urethras, no cuts into the sigmoid,—all possible accidents in this highly technical procedure.

TABLE I

AGE

Prostatectomy		*Resection*	
No. Cases	27	No. Cases	42
Youngest	50 years	Youngest	50 years
Oldest	87 years	Oldest	91 years
Average	70 years	Average	69½ years

DURATION OF SYMPTOMS

Prostatectomy		*Resection*	
Shortest	1 year	Shortest	6 months
Longest	20 years	Longest	20 years
Average	5½ years	Average	3½ years

Degree of Obstruction

Prostatectomy		*Resection*	
Complete	27	Complete	23
Partial	0	Partial	17
		Suprapubic drain	2
		Average partial	184 cc.

TABLE II

Hospitalization

Prostatectomy	Days	*Resection*	Days
Shortest, all cases	3	Shortest, all cases	6
Longest, all cases	78	Longest, all cases	45
Average, all cases	29	Average, all cases	19
Shortest, living only	16	Shortest, living only	6
Longest, living only	78	Longest, living only	45
Average, living only	35½	Average, living only	20
Deaths, average	16	Deaths, average	20¼

Resection		*Complete obstruction, all cases*	Days
Days Fever		Shortest	8
No days	8	Longest	45
1 day	10	Average	26
2 days	4		
3 days	3	*Partial obstruction, all cases*	Days
4 days or more	17	Shortest	3
Sedatives		Longest	34
No morphine	22	Average	12
Morphine	20		

TABLE III

Preoperative Treatment

Prostatectomy		*Resection*	
Average	3½ days	Average	6 days

Operation

Prostatectomy		*Resection*	
Suprapubic		One resection	25
First stage only	4	Two resections	11
Complete	22	Three resections	4
Perineal	1	Four resections	1
		Suprapubic drain	1
Resection		Average grams	11½
Residual on Discharge		Least grams	2
None	28 cases	Most grams	38
15 cc.	5 cases		
30 to 90 cc.	5 cases		
150 cc.	1 case		

TABLE IV

Complications

Prostatectomy		*Resection*	
Infection	5	Immediate hemorrhage	2
Shock	4	Delayed hemorrhage	3
		Cystotomy for hemorrhage	3
		Epididymitis	1
		Temporary incontinence	3
		Phlebitis	1
		Pyelonephritis	2
		Anuria fatal	1
		Intestinal obstruction	1
		Gastro-intestinal bleeding	1
		Respiratory infection	1

End Results

Prostatectomy		*Resection*	
Deaths	8	Deaths	4
Suprapubic fistula	1	Suprapubic tube	2
Perineal fistula	1	Frequency	2
Bladder neck contracture	1	Prostatectomy subsequently	1
Good function	15 or 55%	Unknown	2
Malignant	3 or 7%	Good function	32 or 76%
Non-malignant	24	Malignant	6 or 14%
		Non-malignant	35

Follow-up: All cases rechecked except two. No residual urine found after 3 months.

Mortality

Prostatectomy	*Resection*
Prostatectomy .....8 or 29.6%	Resection .....4 or 9½%

TABLE V

Mortality Analysis

Prostatectomy

4 died after cystotomy done on admission to hospital
4 died after second operation
1 had 4 days preop. 16 days between ops. Died 2nd postop. day.
1 had 4 days preop. 14 days between ops. Died 1st postop. day.
1 had 3 days preop. 11 days between ops. Died 6 hrs. postop.
1 had 10 days preop. 125 days between ops. Died embolism, 8th postop. day.

Resection

No. 1. Age 50, syphilitic, anuria after resection—died in coma. Autopsy showed chronic interstitial nephritis, myocarditis and arteriosclerosis. Clinically, death due to uremia.

No. 2. Age 69, incapacitated one year ago with heart trouble, tolerated resection well but fell dead walking from toilet to bed 6 days after second resection. Clinically, death due to heart failure.

No. 3. Age 80, semi-invalid for two years, died two days after resection. Death due to high grade cardiovascular renal disease. Probably a spinal anesthesia death. Should not have been operated upon at any time.

No. 4. Age 72, very intolerant to all treatment. Marked myocardial degeneration. Had severe hemorrhage after second resection. Suprapubic cystotomy, blood transfusion and death. A resection death.

COLLEGE OF PHYSICIANS

The Twentieth Annual Session of the American College of Physicians will be held in Detroit with headquarters at the Book-Cadillac Hotel, March 2–6, 1936.

Dr. James Alex. Miller, of New York City, is President of the College, and has arranged a program of general scientific sessions of great interest to those engaged in the practice of Internal Medicine and associated specialties. Dr. Charles G. Jennings, of Detroit, is the General Chairman of the Session, and is in charge of the program of clinics and demonstrations in the hospitals, medical schools and other Detroit institutions. Dr. James D. Bruce, Vice President in Charge of University Relations, University of Michigan, is Vice Chairman of the Committee on Arrangements, and has in charge the preparation of an all-day program to be conducted at the University of Michigan on Wednesday, March 4. Dr. Walter B. Cannon, Professor of Physiology at Harvard University Medical School, will deliver the annual Convocation Oration on "The Role of Emotion in Disease". Dr. Miller's presidential address will be on "The Changing Order in Medicine". About fifty eminent authorities will present papers at the general scientific sessions, while clinics and demonstrations will be conducted at the Harper, Receiving, Ford, Grace, Herman Kiefer and Children's Hospitals, of Detroit.

Prostatic Obstruction; A Comparison of Results in Fifty Transurethral Resections and Fifty Suprapubic Prostatectomies*

By W. M. KEARNS, M. D.
Milwaukee

THE choice of method for the relief of prostatic obstruction today varies with different urological surgeons whose lines of treatment formerly conformed quite closely with one another. The improvement in recent years in cystoscopic equipment for the transurethral resection of various types of prostatic obstruction, together with reports of excellent results in its application, has resulted in the widespread adoption of the new method as a substitute for prostatectomy. In some centers the method of cystoscopic resection is applied to all types of obstruction with complete exclusion of prostatectomy. In other centers, after trial of resection, it is reserved for only certain types of obstruction and for certain patients.

The following tabulations record the high points of results in a series of one hundred unpicked consecutive cases of prostatic obstruction operated upon beginning in February, 1933, and ending in January, 1935. They represent my first fifty resections and my last fifty prostatectomies, performed simultaneously—the resections were completed about two months prior to the prostatectomies. The work was done in twelve different private hospitals with the same advantages and disadvantages to all patients.

MORTALITY

	Prostatectomy	*Prostatic Resection*
Number of cases	50	50
Deaths	3	2
Mortality rate	6%	4%
Causes of Death	1. Pneumonia 2. Coronary thrombosis 3. Sepsis, myocarditis	1. Psychosis, advanced arteriosclerosis. 2. Multiple pulmonary abscesses
Average age	68 years	62 years
oldest	80	80
youngest	51	48

HOSPITALIZATION

	Prostatectomy	*Prostatic Resection*
Average preoperative days	8.7	8
longest	33	31
shortest	1	0
Average postoperative days	16.2	11
longest	40	30
shortest	7	1
Average total hospital days	25	17
longest	49	35
shortest	9	1
Total hospital days	1250	850

COMPARATIVE DATA

	Prostatectomy	*Prostatic Resection*
Carcinoma	5	11
Vasectomy performed	13	21
Epididymitis	3 among 37	6 among 29
Severe hemorrhage	2	5 (one cystotomy)
Postoperative transfusion	12	12
Preoperative cystotomy	22	8
Average duration of operation	9.5 minutes	41 minutes
longest	22	80
shortest	5	22
Average high point of post-operative temperature	102.3	101.4
highest	105.0	104.0
lowest	100.0	99.0

COMPARATIVE RESULTS

	Prostatectomy	*Prostatic Resection*
Satisfactory outcome	45 (3 deaths)	30 (2 deaths)
Temporary incontinence	0	18
Persistent incontinence	0	1
Gross pyuria after 3 months	2	18
Prostatitis	0	19 (12 prev. neg.)
Residual urine 1 to 4 oz.	0	7

MASSAGE AFTER RESECTION

If prostatitis exists before resection, it is aggravated by the procedure. Moreover the procedure is apt to give those a prostatitis who previously had none. In those patients who are not too aged and debilitated very early gentle massage should be carried out at regular intervals following resection. With the vasa deferentia having been ligated, the danger of epididymitis is obviated. In this series, nineteen resected patients have been found to have pus in their prostatic secretion. In some of the patients so treated there was a striking general improve-

* Presented at the annual meeting of the Wisconsin Urological Society at Stevens Point, Wisconsin, May 4, 1935.

ment and relief from dysuria and pyuria as well. We believe prostatic massage, judiciously applied, is a most beneficial adjunct in the after-care of these patients.

CONCLUSIONS

To draw final conclusions from this small series alone would be presumptuous. The small number assures me that I am not open to the criticism of Hinman that some prostatic resections are being done unnecessarily, or to the criticism of Pelouze that some resectionists are seeing imaginary median bars. Reactionaries have made the quip that in some quarters no male past the age of puberity is safe from resection. At any rate, there has been a terrific influx of median bars with the advent of handy resectoscopes. The new foroblique cystoscopes being pushed by the instrument houses are helping to bring a lot of them into view—real and illusionary. It is my impression that prostatic resection will probably never satisfactorily overcome all types of obstruction. The dictum laid down by some that if the resectoscope can be introduced it is a satisfactory case for resection, is unsound according to my experience. The young prostatic with a large adenomatous gland, who is a good operative risk, no doubt can be given assurance of a more clean cut and complete recovery and permanent cure following enucleation. We hold the same applies to very large middle lobe enlargements. It is only reasonable to anticipate that when a sizeable part of a growing gland is left in situ obstructions may recur. Moreover, the complete removal of an hypertrophied gland forestalls the development of carcinoma in a tissue where it is very prone to develop. Also the actual eradication of early low grade circumscribed malignancies has been accomplished by prostatectomy, while resection would leave the gland to develop into carcinoma.

Our chief cause of unsatisfactory outcome with resection is persistent infection in spite of our increasing efforts for strict asepsis. The basis for this persistent infection, no doubt, lies in the devitalized surface tissue which remains following diathermia, in the disturbed drainage of the gland due to amputated ducts with ensuing obstruction and in the disturbed circulation of the gland.

Prostatic Obstruction; A Study of One Hundred and Seventy-Eight Cases*

By ROBERT IRWIN, M. D.
Milwaukee

IN VIEW of the trend away from suprapubic prostatectomy to transurethral resection of the prostate, we thought a study of a number of cases of prostatic obstruction treated by both methods would be interesting and informative.

This series of cases contains the first transurethral resections performed in the hospital, whereas suprapubic prostatectomy has been the operation of choice for years.

The following is a review of the cases of prostatic obstruction treated over a period of three and one-half years and includes only those whose symptoms were severe enough to demand relief. We call your attention to the fact that many county hospital patients refuse surgical intervention until such time as they are driven from sheer exhaustion to seek relief. In judging the following statistics, we ask you to keep this fact in mind: that, usually, the patient who comes to you in private practice seeks relief from his symptoms earlier than the type of patient treated in charity hospitals. This has a decided bearing on the statistics which follow. The fact that sixty-three, or 33.7% of the cases, came to the hospital with acute urinary retention, and thirty-two, or 17.9% with overflow incontinence, strikingly illustrates this point.

* From Department of Urology, Milwaukee County Hospital and Marquette University.

GENERAL STATISTICS

Total number of cases	178
Total number of operations	186
Number refusing operation	5
Number whose physical condition was too poor to warrant surgical operation	3
Number expired during preparation	12

Eight drained by suprapubic cystotomy. Four drained by indwelling catheter.

Number of cases subjected to permanent suprapubic cystotomy for carcinoma	6
Number of cases prostatectomized	158
Number of cases operated upon twice	8
Number of cases operated upon three times	4

Three cases operated upon by transurethral resection were later subjected to suprapubic prostatectomy because of urinary retention.

Two cases of suprapubic prostatectomy were later subjected to transurethral resection because of postoperative contracture at vesicle neck.

	Number of Cases	*Per cent*
Acute urinary retention	63	33.7
Overflow incontinence	32	17.9
Vesicle calculi	7	3.8
Diverticuli	5	2.8
Infection (preoperatively)	149	83.7

MORTALITY STATISTICS

	Number of Deaths	*Mortality*
Number of operations: 186	35	18.8%
Number of suprapubic prostatectomies: 88	16	18.1%
Number of transurethral resections: 84	11	13.1%
Number of cases prepared by suprapubic cystotomy or by indwelling catheter or by intermittent catheterization: 161	12	7.4%

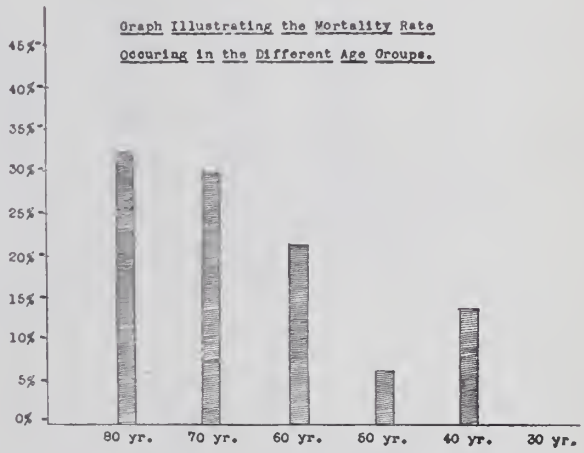
MORTALITY STATISTICS FOR 1934

	Number of Deaths	*Mortality*
Number of operations: 64	8	12.3%
Number of suprapubic prostatectomies: 14	1	7.1%
Number of transurethral resections: 35	2	5.7%
Number of cases prepared by suprapubic cystotomy or by indwelling catheter or by intermittent catheterization: 43	5	11.6%

AGE STATISTICS

Year Group	*No. of Cases*	*No. of Deaths*	*% of Deaths*
30	1	0	0.0
40	7	1	14.3
50	40	3	7.5
60	66	15	22.9
70	55	17	30.9
80	9	3	33.3

Youngest patient 37 years
Oldest patient 87 years



PRELIMINARY DRAINAGE

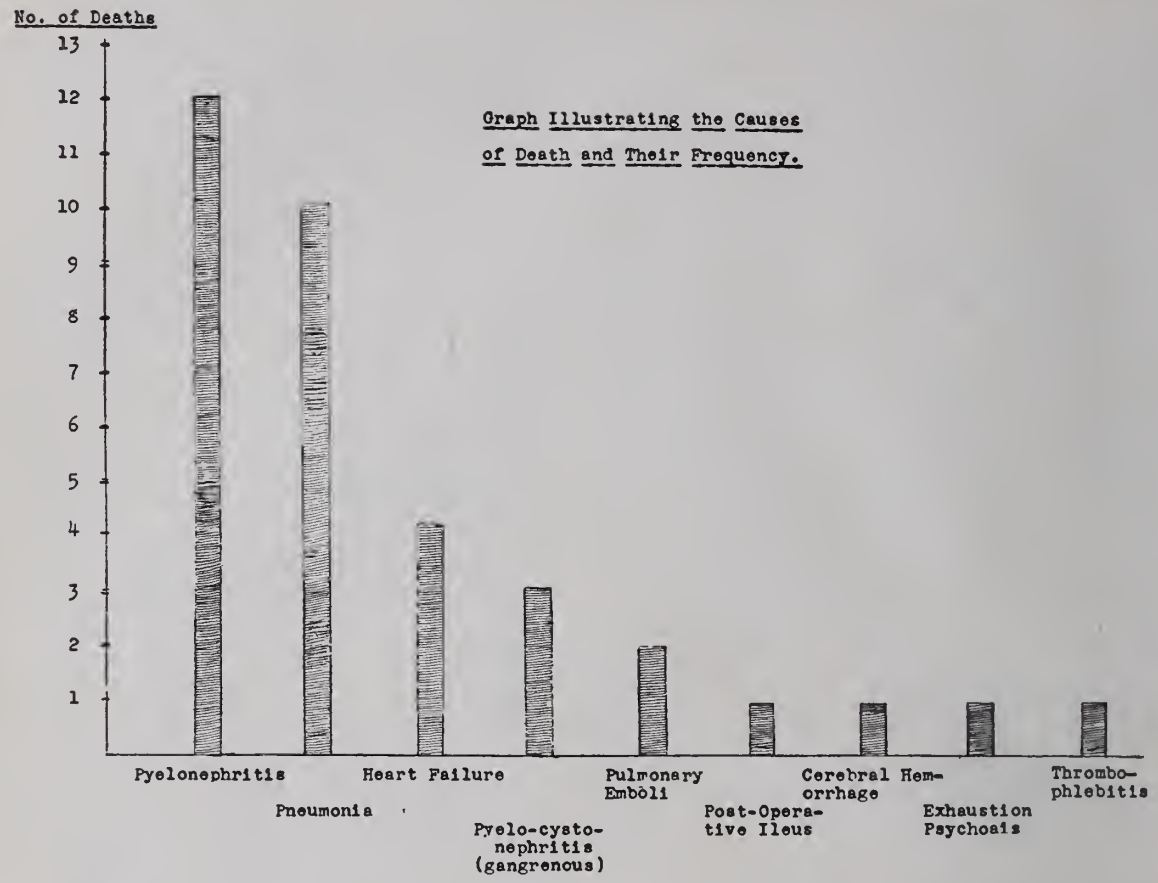
Type of Drainage	*No. of Cases*	*Percentage*
Suprapubic cystotomy	51	28.6
Catheterization	110	61.8
No drainage	17	8.5

Percentage of Deaths Following the Various Kinds of Preliminary Drainage

		Percentage
Number of cases drained suprapubically	12	34.2
Number of cases drained by urethral catheter	21	65.5
Number of cases which were not drained	2	5.7

POSTOPERATIVE COMPLICATIONS RESULTING IN DEATH

Complication	*No. of Cases*	*No. of Deaths*	*% Expired*
Pneumonia	13	10	76.9
Pyelonephritis	?	12	?
Pyelo-cysto-nephritis (gangrenous)	3	3	100.0



Complication	*No. of Cases*	*No. of Deaths*	*% Expired*
Postoperative Ileus	4	1	25.0
Pulmonary Embolism	2	2	100.0
Cerebral Hemorrhage	1	1	100.0
Heart Failure	9	4	44.4
Exhaustion in the Course of Manic Depressive Psychosis	1	1	100.0
Thrombophlebitis	6	1	16.6

General septicemia followed one case of thrombophlebitis and resulted in death.

CAUSES OF DEATH

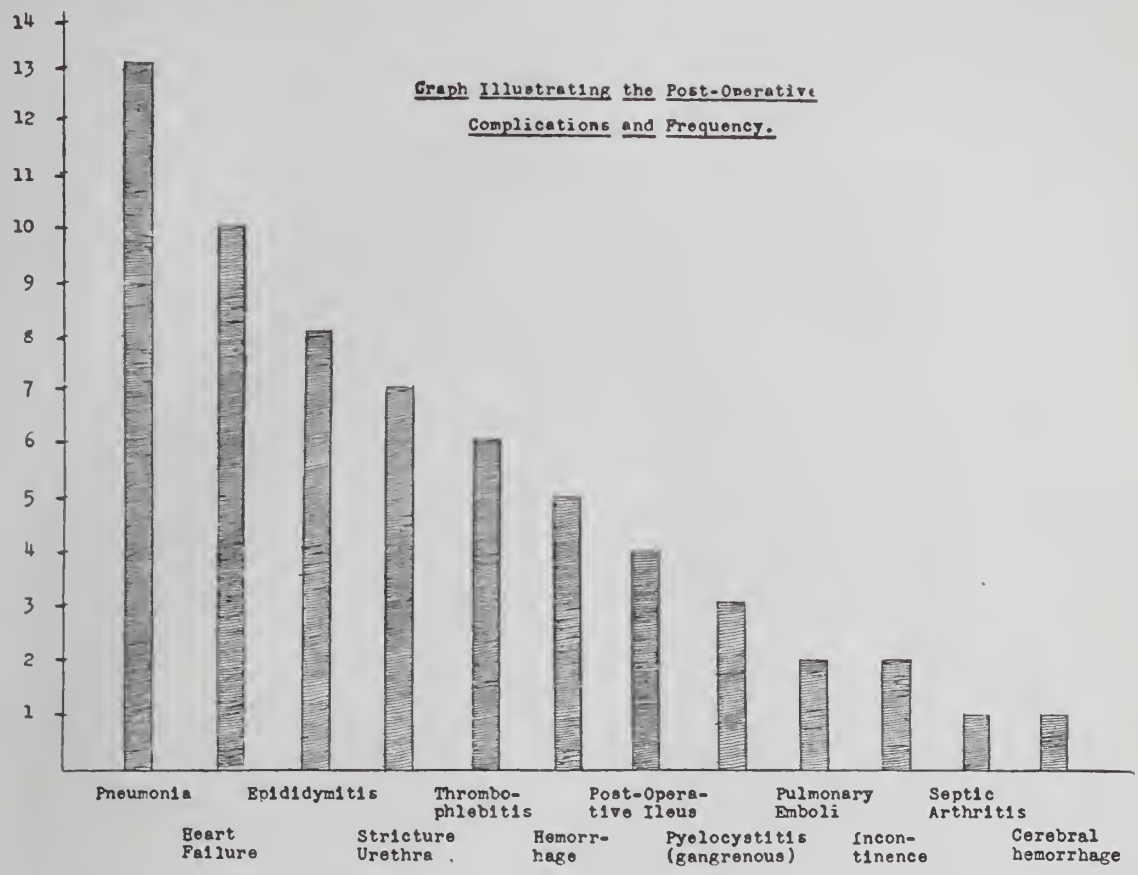
Cause	*No. of Deaths*	*% Deaths*
Pneumonia	10	28.5
Pyelonephritis	12	34.3
Pyelo-cysto-nephritis (gangrenous)	3	8.5
Postoperative Ileus	1	2.8
Heart Failure	4	11.4
Cerebral Hemorrhage	1	2.8
Pulmonary Embolism	2	5.7
Thrombophlebitis (general septicemia)	1	2.8
Exhaustive in the course of Manic Depressive Psychosis	1	2.8

POSTOPERATIVE COMPLICATIONS

Sixty-one, or 32.6%, developed postoperative complications.

Pyelonephritis was not considered in the following table since the differentiation between pyelonephritis and pyelocystitis was not made preoperatively. However, pyelonephritis was ascribed as the chief cause of death in twelve of the cases. This diagnosis was proved by postmortem examination in seven of these cases.

Complication	*No. of Cases*	*Percentage*
Hemorrhage	5	2.7
Pneumonia	13	6.9
Epididymitis	8	4.3
Stricture Urethral	7	3.8
Thrombophlebitis	6	3.2
Pulmonary Embolism	2	1.0
Postoperative Ileus	4	2.2
Cerebral Hemorrhage	1	.5
Heart Failure	9	4.8
Acute Septic Arthritis	1	.5
Urinary Incontinence	2	1.0
Pyelo-cysto-nephritis (gangrenous)	3	1.6

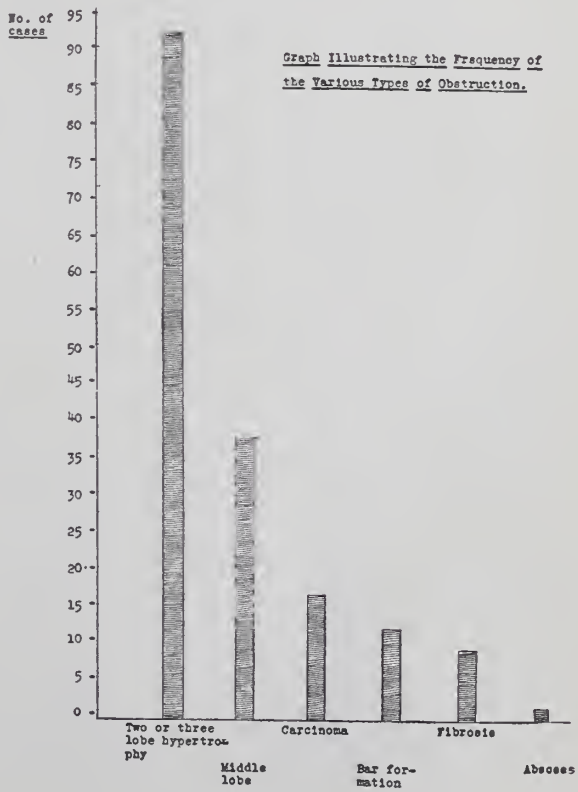


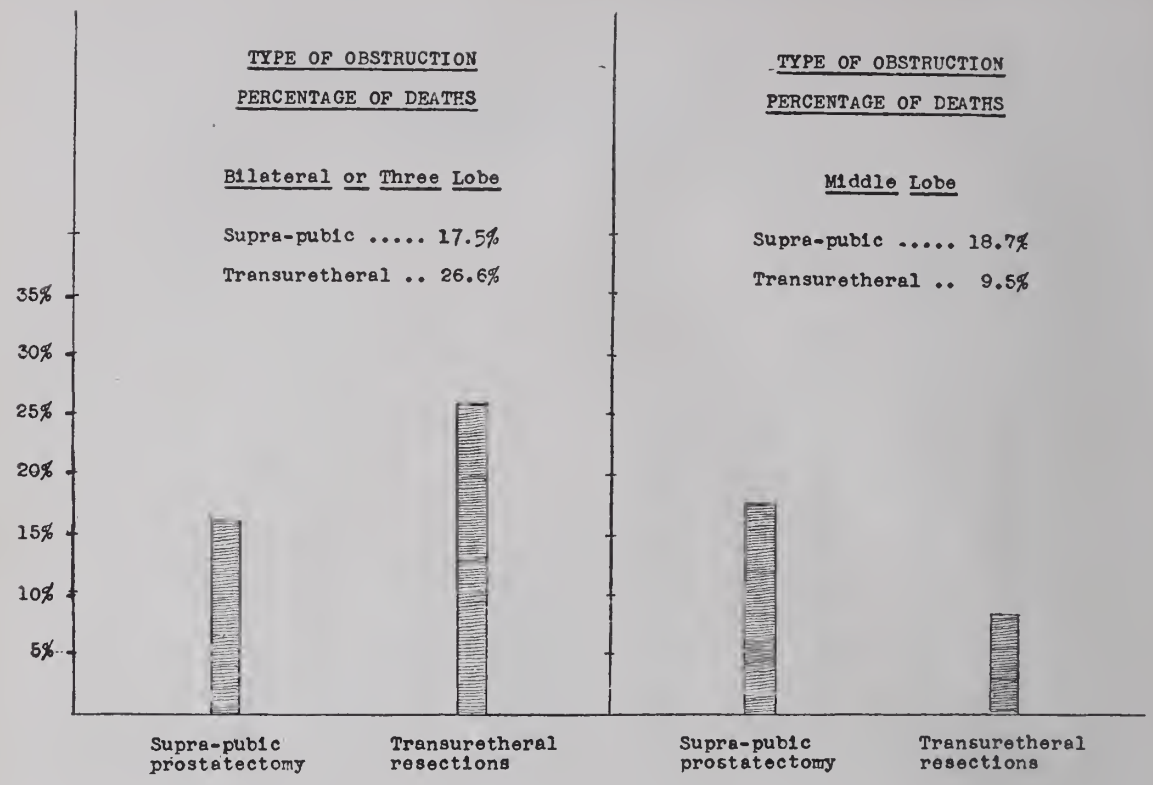
VARIOUS TYPES OF PATHOLOGICAL OBSTRUCTION

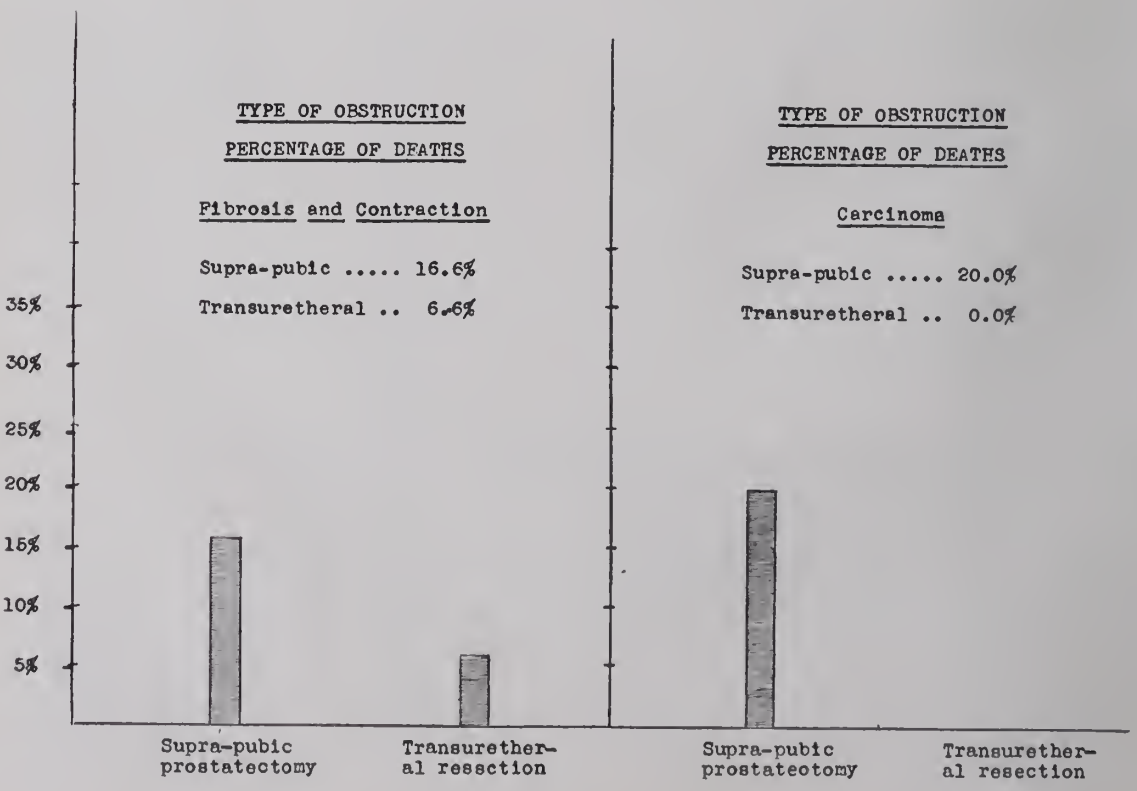
Type of Obstruction	*No. of Cases*	*Percentage*
Bilateral or Three Lobe	93	56.9
Middle Lobe	37	23.4
Fibrosis or Contracture	8	5.3
Bar Formation	13	8.2
Carcinoma	17	9.5
(Five cases diagnosed clinically as benign hypertrophy proved to be carcinoma.)		
Abscess	1	.6

OPERATION PERFORMED ON THE VARIOUS TYPES OF OBSTRUCTION

Obstruction	*Suprapubic Prostatectomy*	*Transurethral Resection*
Bilateral or Three Lobe	63	30
Middle Lobe	16	21
Fibrosis	3	5
Bar Formation	3	10
Carcinoma	5	6
Abscess	1	0




TYPE OF OBSTRUCTION
PERCENTAGE OF DEATHS
Bilateral or Three Lobe
Supra-pubic 17.5%
Transuretheral .. 26.6%
35%
30%
25%
20%
15%
10%
5%
Supra-pubic prostatectomy
Transuretheral resections
TYPE OF OBSTRUCTION
PERCENTAGE OF DEATHS
Middle Lobe
Supra-pubic 18.7%
Transuretheral .. 9.5%
Supra-pubic prostatectomy
Transuretheral resections


TYPE OF OBSTRUCTION
PERCENTAGE OF DEATHS
Fibrosis and Contraction
Supra-pubic 16.6%
Transuretheral .. 6.6%
35%
30%
25%
20%
15%
10%
5%
Supra-pubic prostatectomy
Transuretheral resection
TYPE OF OBSTRUCTION
PERCENTAGE OF DEATHS
Carcinoma
Supra-pubic 20.0%
Transuretheral .. 0.0%
Supra-pubic prostatectomy
Transuretheral resection

DETAILED STUDY

Transurethral resection was performed upon thirty cases of bilateral or three lobe hypertrophy. There were eight deaths in this group, or a mortality of 26.6%:

Five, or 62.5%, due to pyelonephritis.
One, or 12.5%, due to heart failure.
One, or 12.5%, due to gangrenous pyelo-cysto-nephritis.
One, or 12.5%, due to bronchial pneumonia.

Seventy-two and seven-tenths per cent of the deaths following transurethral resection occurred in the above group.

There were twenty-one cases of middle lobe obstruction operated upon by this method with two deaths or a mortality rate of 9.5%. One death was due to gangrenous pyelo-cysto-nephritis and the other to pyelonephritis.

There were five cases of fibrosis and ten cases of bar formation operated upon by this method with one death, or a mortality rate of 6.6%. This death was due to pyelonephritis.

There were six cases of carcinoma resected with no deaths.

Summarizing the above group there were nine deaths, or 81.8%, due to infection. One, or 9%, due to acute heart failure and one due to bronchial pneumonia.

Suprapubic prostatectomy was performed upon sixty-three cases of bilateral or three lobe hypertrophy. There were eleven deaths in this group, or a mortality rate of 17.5%:

Three, or 27.2%, due to pyelonephritis.
One, or 9.1%, due to gangrenous pyelo-cysto-nephritis.
Four, or 36.3%, due to pneumonia.
Two, or 18.1%, were due to acute heart failure.
One, or 9.1%, due to pulmonary embolism.

In the middle lobe group there were sixteen cases with three deaths, or a mortality of 18.7%:

One, or 33.3%, due to pyelonephritis.
One, or 33.3%, due to pulmonary embolism.
One, or 33.3%, due to pneumonia.

There were six cases of bar formation and fibrosis operated upon by this method with one death or a mortality of 16.6% This death was due to pneumonia.

There were five cases of carcinoma operated suprapubically with one death, or a mortality rate of 20%.

The prostatic abscess operated upon by this method (error in diagnosis) developed thrombo-phlebitis which was followed by general septicemia and death.

There were eight operative deaths which occurred during preparation:

Three were due to pneumonia.
One due to postoperative ileus.
One due to acute heart failure.
One due to pyelonephritis.
One due to an acute cerebral hemorrhage.
One due to exhaustion in the course of manic depressive insanity.

SUMMARY

1. The mortality rate rises sharply after the sixtieth year of age.
2. The clinical diagnosis of carcinoma was not made in approximately thirty per cent of the cases which were proven carcinoma by microscopic examination.
3. One-third of the cases developed complications postoperatively.
4. Three diseases, pyelonephritis, pneumonia, and acute heart failure caused 82.7 per cent of the total number of deaths.
5. Eighty-three per cent of the patients had a urinary infection before treatment of any sort was administered in the hospital.
6. Eighty-one per cent of the deaths following transurethral resection were due to urinary infection.
7. Thirty-one per cent of the deaths following suprapubic prostatectomy were due to urinary infection.
8. Thirty-seven per cent of the deaths following suprapubic prostatectomy were due to pneumonia.
9. Nine per cent of the deaths following transurethral resection were due to pneumonia.
10. Approximately fifty per cent of the cases in this series presented that type of obstruction well suited for transurethral resection.

11. The preoperative, or preparation, mortality rate, is as great as the postoperative mortality rate.

CONCLUSIONS

1. Urinary infection is a matter of prime importance, especially in a consideration of transurethral resection.
2. Selection of the kind of operation best suited for the type of obstruction has been an important factor in the reduction of the mortality rate. (1934 statistics)
3. Transurethral resection is not the operation of choice on large obstructions with an unresponsive urinary infection.

A Brief Resume of Serodiagnostic Tests for Syphilis

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THE most important contribution during the past few years in the serodiagnosis of syphilis has been the development and refinement of various precipitation or flocculation tests. At the present time, in many clinical laboratories, a flocculation test is being performed in conjunction with a Wassermann or complement-fixation test on all suspected syphilitic sera. Indeed, in some sections of the country, flocculation tests alone are used, entirely replacing the Wassermann. The growing popularity of these tests is evidence of their simplicity, specificity and sensitivity as compared to the Wassermann reaction. Because there are a number of flocculation tests being used in the United States, and because of the general confusion existing concerning their relative values, it was felt that a brief history of their development, together with a resume of the principles of the tests and their evaluation might be of interest. The mechanism of the Wassermann test, since it is so well known, will be omitted from this discussion.

HISTORY

The Wassermann test was introduced in 1906, but, because of its complex nature, workers immediately began to seek a simpler method by which the laboratory could aid in the diagnosis of syphilis. Marie and Levaditi and others in 1907 showed that alcoholic extracts of normal organs would act as well in the Wassermann test as a watery extract of syphilitic liver and that the reaction was one between syphilitic reagin and lipoids. Immediately, investigators undertook the demonstration in syphilitic serum of precipitins, and of changes in the physical state, hoping to find a less complicated test than the Wassermann. Michaelis, in 1907, observed precipitates on mixing syphilitic serum with a watery extract of syphilitic liver, and was the first to investigate along these lines. Klausner, in 1908, showed that when distilled water was added to syphilitic serum, a precipitate formed. In the same year it was found that a precipitate formed when syphilitic sera was mixed with glycocholate of soda. Thus, it early became known that syphilitic sera, when mixed with any of a variety of extracts of organs or with certain chemicals, a precipitate was formed. Jacobstahl was the first to announce a precipitation method in which an alcoholic extract of syphilitic liver was used as an antigen and the precipitates were read by dark-field illumination. Many such tests were evolved from 1907 to 1917, but none of them approached the Wassermann reaction in reliability and thus were of little value to the clinician. From 1917 to 1919, Meinicke produced three tests of which the last, known as the Dritte Meinicke, attained some popularity. This test depended on the flocculation of a diluted extract of horse heart by a syphilitic serum. In 1918, Sachs-Georgi introduced their reaction; the precipitation by syphilitic sera of a diluted extract of ox heart to which had been added cholesterol. The addition of cholesterol increased the sensitivity of the tests and stimulated their further development, although the way in which cholesterol acts has been vigorously debated. In 1920, Vernes developed his method consisting of an increased turbidity produced by

the addition of syphilitic serum to a specially prepared and diluted horse heart extract. The Sigma test developed in 1921 was a modification of the Sachs-Georgi test and was of value because Dreyer and Ward, the originators, showed that the physical state of diluted extract is highly important and is dependent on the method of dilution.

Because of the increasing number of flocculation tests and their modifications along with the Wassermann test and its modifications, the Health Section of the League of Nations undertook a comparative study by calling an international conference of laboratory investigators at Copenhagen in 1923. At this conference, the best of the complement-fixation tests proved their superiority over the best of the flocculation tests. Following the work of the conference, development in the flocculation tests with respect to both their sensitivity and their specificity went on at a rapid pace.

In 1922 Kahn had already developed the test bearing his name and pointed out the importance of keeping the reagents as concentrated as possible and of agitating the test. The Meinicke turbidity reaction was published in 1923 and Muller's clotting reaction in 1925. In 1928, Sachs and Witebsky introduced a modification of the original Sachs-Georgi test and called it the citochol reaction. Then in response to a number of requests, a second Serologic Conference, the results of which will be commented upon later in this paper, was held in June, 1928, at Copenhagen. An interesting method shown at this conference was the Murata test similar to the nitric acid test for albumin in urine and dependent upon the formation of a ring at the junction of serum and extract for positive indication. Although it is the easiest test of all to carry out, it has not proved sufficiently reliable.

Valuable additions to the list of the flocculation procedures introduced in the United States within recent years have been the tests of Bass, Johns, and Hinton. Other men who have developed precipitation methods are: Bruck and Hidaka, Hecht, Vernes, Dold, and Bruck. Meinicke has improved on his test by producing the clearing reaction, and Muller has modified his test so that results can be obtained in two to three hours. A noteworthy development in this country has been the introduction of a slide precipitation test known as the Kline microscopic test. The Kline test is adaptable for use with a very small amount of serum and is proving of especial value in the serum diagnosis of primary syphilis where a few drops of the secretion from the chancre is sufficient not only for the dark-field examination, but likewise for the microscopic slide test. More recently, blood plasma has been used instead of blood serum in the flocculation tests.

FUNDAMENTAL CONSIDERATIONS

It has been known for years that flocculation, or precipitation invisible to the naked eye, but detectable by miscroscopic examination, occurs during the process of complement-fixation. Despite this fact, it is only the work of the past three years that has brought together our knowledge of the mechanism of the Wassermann and flocculation tests within the field of electrolytic phenomena and shown the essential similarity of both processes with the mechanisms for bacterial agglutination. Studies by Sachs-Klopstock have tended to show that the substance responsible for the Wassermann and precipitation reactions is a lipoid extract or degeneration product of Spirochaeta pallida rather than a product of the reacting body tissues.

Regarding the flocculation tests, Eagle points out that all of them are fundamentally identical; that each test is only a different combination of the same variables, and that the sensitivity and specificity of any one test are largely determined by the particular combination of variables chosen.

In every one of the flocculation tests now in use, an alcoholic extract of mammalian tissue such as heart, liver, kidney, or muscle of man, cow, horse, or swine is diluted with some sort of an aqueous solution forming a suspension of lipoid particles. This is known as the "antigen" suspension. The choice of the tissue used to prepare the antigen is of little importance, but the method of extraction from the tissue plays a major role in the test. Other substances such as choles-

terol, usually employed in the maximum possible concentration, when added to the alcoholic extract or antigen, results in a greatly increased sensitivity. Cholesterol is commonly spoken of as a sensitizer. Other substances such as tolu balsam, benzoic acid, and sterols are sometimes used to replace cholesterol.

The alcoholic extract, or antigen, or lipoid suspension is diluted with salt solution, the amount of which used, its electrolytic concentration, H-ion content, and method of dilution determines the properties of the suspension. This is the most important and difficult step in the flocculation technic.

When normal human serum is added to the antigen suspension, the lipoid particles remain discrete and there is no visible aggregation. However, if syphilitic serum, which contains a reactive substance always associated with the globulin fraction of the serum protein, be added, the globulin fraction combines with the lipoid particles in the presence of the salt solution and the visible aggregates or precipitates which form are the criteria of a positive test. These aggregates on precipitates consist chiefly of lipoid particles to which is firmly bound a globulin fraction of the serum protein which is present in syphilitic serum. The reaction is read directly without an indicator system, such as the hemolytic system used in the complement-fixation test, by observing with the naked eye or microscope the presence, amount, and character of the flocculation or precipitation. The tests are thus simple and time-saving.

All flocculation tests, then, it is believed, fundamentally involve the above-mentioned series of events, but differ in the manner of preparation of the lipoid suspension used as an antigen which we have already discussed and in the amount of antigen and serum used, in the condition of the serum, i.e., whether the serum has been inactivated or incubated, and in the use of agitation and of centrifugation.

PRESENT STATUS

The health section of the League of Nations has rendered a great service by its evaluation of serodiagnostic tests for syphilis at the conferences held at Copenhagen in 1928 and at Montevideo in 1930.

The conclusions reached from the work of these conferences are well worth reiterating. It might be stated that at Copenhagen fifteen different methods employed for the serodiagnosis of syphilis were compared, seven modifications of the Wassermann reaction and eight different flocculation methods: Kahn, Murata, Meinicke, Muller, Sachs-Georgi, Citochol, Vernes, and Sigma. Ten of the methods were carried out by their authors. The exhibition of the tests at the conferences clearly revealed the tremendous increase in specificity and sensitivity of the precipitation tests over the complement-fixation procedures considered.

The performance of the Kahn precipitation test at both conferences was outstanding and placed it as the foremost serodiagnostic procedure in the diagnosis of syphilis at that time.

At the conclusion of the exhibition of the tests, the members of the conferences, after appraising the result conservatively, declined to designate any one test as "the best", but recommended that for the time being more than one procedure, preferably one precipitation and one complement-fixation test, be performed on every serum that was being studied for the presence of syphilis.

Recently, an evaluation of serodiagnostic tests for syphilis was sponsored by the U. S. Public Health Service.[1] Thirteen of the outstanding serologists of the country participated in the study. The conclusions reached by the committee were: The ideal serodiagnostic test for syphilis should possess both specificity and sensitivity. There was a relatively equal value to the clinician of the efficient complement-fixation tests and the efficient flocculation tests as applied to either blood or spinal fluid specimens. Certain of the flocculation tests were relatively inadequate as applied to spinal fluids. If two tests are to be performed, it is immaterial whether two complement-fixation tests, two flocculation tests, or a combination of one of each sort is selected. There is some evidence that a properly performed, highly sensitive flocculation test might be used as a routine for the purpose of excluding the

likelihood of syphilis; if a negative result is obtainable by such a method, it is quite likely that it will be negative by any other method; if the test yields a positive result, it should be repeated and compared with one or more highly specific flocculation or complement-fixation test. The committee recommends a simple method of reporting qualitative tests to all serologists. It being satisfactory to report results as merely "positive," "doubtful", or "negative".

Another timely study to be undertaken within the next few months by the U. S. Public Health Service will be to furnish state and local laboratories and possibly a few private laboratories with samples of blood in order that the efficiency of the serologic work in these laboratories may be studied.

An important consideration in all serodiagnostic tests for syphilis is that at the present time there is no such thing as an errorless serologic test for syphilis. With all tests there is a definite and inescapable margin of error which may be extremely slight, as in several of the precipitation tests, or it may be extremely serious as in some of the older modifications of the Wassermann reactions which are still widely used.

One far-reaching effect of the development and use of the flocculation tests has been that a serologic test for syphilis is now considered a routine part of every medical examination for these reasons: The simplified procedure in the flocculation tests has done away with the objections on the score of expense; the increase in specificity and sensitivity of the modern serologic tests has given them a reliability much superior to the older Wassermann procedures; the fact that the clinical signs of syphilis disappear so readily under modern treatment, or even without treatment, leaves many patients whose conditions can be identified or appraised only by the habitual use of serological tests; and in certain phases of syphilis, such as visceral or osseous syphilis, the clue to diagnosis is dependent, to a large extent, upon the serologic tests which may thus point the way to proper treatment. However, it must not be forgotten that in cardiovascular and neurosyphilis, two most serious phases of the disease, serologic test may be negative in the presence of syphilis.

Due to the fact that the modern serologic tests for syphilis are much more sensitive and will remain positive for a much longer period of time than the tests formerly used, the treatment of syphilis will be much more thorough than in the past. However, serologic tests should be used as guides in treatment rather than as absolute criteria for judging the amount of treatment needed.

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Pericardial Effusion in Myxedema; Report of Case*

By MARIE L. CARNS, M. D., and HOWARD J. LEE, M. D.
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IN 1918 Zondek[1] first described under the term "myxedema heart" certain cardiac findings observed in some myxedematous patients. In 1925 Fahr[2] published the first article on the subject which appeared in this country, and expressed the belief that heart failure is a prominent feature of all outspoken cases of myxedema. The whole subject of the heart in myxedema has been a matter of considerable interest and dispute since these first reports and was very extensively reviewed and summarized by Ohler and Abramson[3] in 1934. They concluded that characteristic changes occur which warrant the term "myxedema heart". In 1929 Gorden[4], in a report on "Some Clinical Aspects of Hypothyroidism", first described a case of myxedema with pericardial effusion. On two occasions the pericardium was tapped and 1500 c.c. of clear amber fluid were removed. On medication with thyroid extract the basal meta-

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bolic rate which had been –42 returned to normal and the pericardial effusion disappeared. A second similar case was reported by Freeman[5] in 1934. Since we have been able to find only two such cases reported, we are adding a third case in which we believe pericardial effusion to have been present.

Mrs. A. L., a white female aged 54, was admitted to the medical service of the Wisconsin General Hospital on July 5, 1933. The chief complaint was fatigue. She stated she had never been active, and that, for a period of about fifteen years, her friends had told her she did not look well. Fatigue had been a symptom of considerable duration, often unrelieved by a good night's rest. Since the spring of 1933, she had noted gradual increase in the size of the abdomen, and progressive dyspnoea. The latter symptom had become very pronounced during the two weeks prior to admission. Inquiry into systemic history revealed that she suffered from attacks of vertigo on sudden change of position. Palpitation was noted only with exertion. Urinary frequency of ten to twelve times a day had been present for about two months. She stated that where formerly she had been quite happy she had become melancholy. The present weight of 160 pounds was the most she had ever weighed, an average weight of 140 pounds having been constant through adult life. Past medical history included measles, mumps, chicken pox and whooping cough. She had given birth to six children of whom one had died of influenza complicating diabetes at the age of 15. The remaining were living and well. The menopause had occurred eleven years before. There were no pertinent facts in the family history.

Physical examination disclosed a moderately obese white female with definite puffiness of the eyelids. The skin was thin in texture and very dry. Slight clubbing of the fingers was present. Examination of the fundi revealed tortuosity of the veins and slight nicking. Marked dental caries were present. The thyroid gland was not enlarged. Crepitant rales were present at both lung bases. There was definite widening of the supracardiac area of dullness. The heart was distinctly enlarged in the transverse diameter. The heart sounds were very distant; the rate seventy-two. There was a systolic murmur present at the apex and transmitted up the left border of the sternum. There was also a systolic murmur at the aortic area transmitted into the vessels of the neck. Blood pressure was 142/100. The liver was palpable 5 cm. below the costal margin. The tip of the spleen was palpable. Signs of free fluid were present in the abdomen. There was distinct edema of the lower extremities.

Laboratory examinations: Urine, specific gravity 1.018, no albumen, no sugar. Hemoglobin 75%, R.B.C. 4,340,000, W.B.C. 7,500, 53% neutrophils and 47% lymphocytes. Mosenthal test showed a variation of 8 points in specific gravity. N.P.N. 25 mg. per cent. Sugar 118 mg. per cent. Blood cholesterol 227 mg. per cent. Wassermann negative. Phenolsulphonephthalein excretion 35% first hour, 15% second hour.

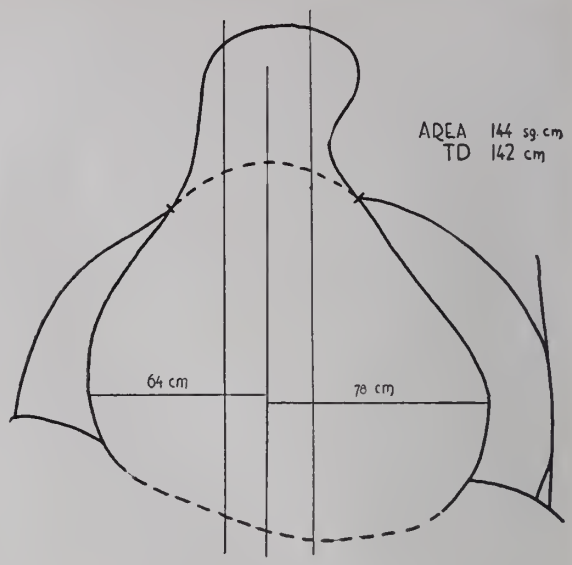


Fig. No. 1

X-ray—Chest: "Enormous increase in the cardiac silhouette: bag-shaped. Fullness in all planes, particularly the left ventricular and right auricular regions." The contour was felt to be compatible with pericardial effusion. There was evidence of congestion at the right lung base.

Basal Metabolic Rate: Initial basal metabolism determinations were –28 and –25 (patient was moderately decompensated at this time).

Electrocardiographic tracing on July 7th disclosed QRS—1 and 3 low and slurred: QRS—2 slurred: T—1 and 2 slightly inverted but nearly flat: T—3 flat: A—V conduction 0.15 sec., I.V. conduction 0.09 sec.

Orthodiascopic tracings done on July 12, 1933, by Dr. C. M. Kurtz revealed slight prominence of the transverse arch. The descending aorta was visualized in the lateral and oblique views. The cardiac contour in the frontal plane (antero-posterior view) was obscured by what appeared to be a large pericardial effusion. The heart borders could be dimly made out well inside the larger and less dense shadow. (Figure No. 1)

Progress: The patient was placed on absolute bed rest and a limited fluid intake. She was also given tincture of digitalis minims xv q.i.d on July 7, 1933. On July 14th the dosage was decreased to minims viii t.i.d., and was entirely discontinued on July 15th. At this time the evidences of decompensation had disappeared. The patient was not dyspnoeic, and one pillow sufficed for sleep. Blood pressure at this time was 130/82.

On July 15, 1933, thyroidea sicca grains one (grs. 1) daily was begun and continued until July 23rd when the dose was raised to grains 1 b.i.d.

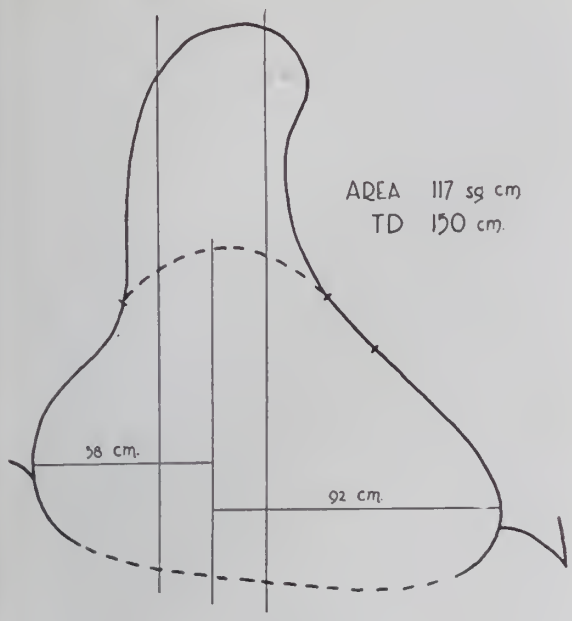


Fig. No. 2

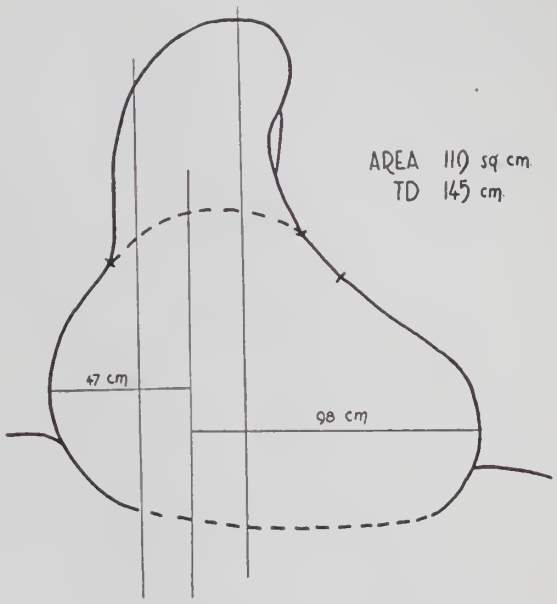
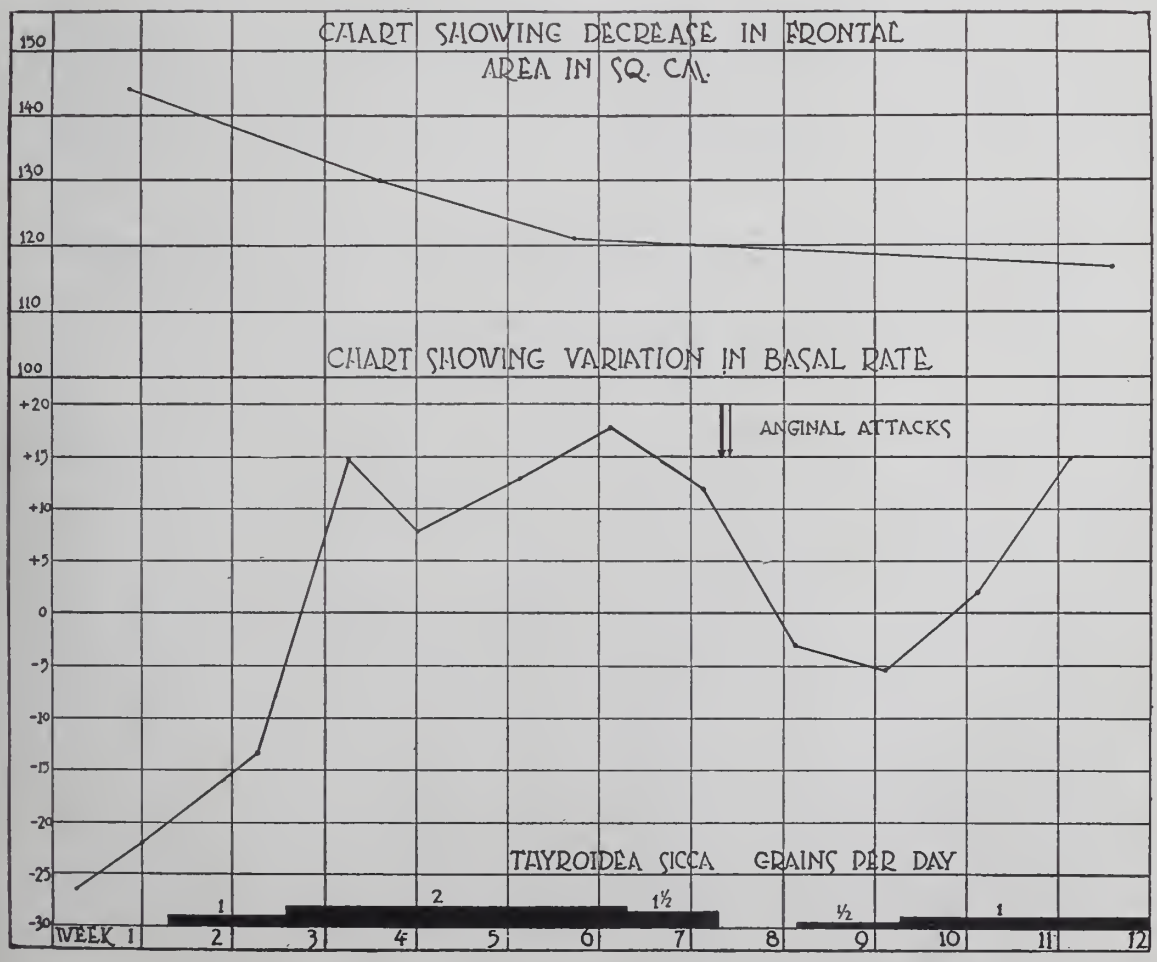


Fig. No. 3



Electrocardiographic tracing on July 26, 1933, reported T—1 and T—2 very low but now upright: T—3 upright but very low. By August 3rd the basal metabolic rate had risen to +7 and +9. On August 8th it was noted that the skin of the arms was distinctly less dry. On August 14th the patient was allowed out of bed for short intervals. On the following day an orthodiascopic tracing revealed no evidence of pericardial fluid. (Figure No. 2). On August 18th the basal metabolic rate was +18 and +19 and as a result thyroidea sicca was dropped to grains one and one-half (grs. 1½) daily. The basal metabolic rate fell to +12 and +11 on August 25th. On the same day the patient experienced precordial pain radiating to the left shoulder and down the left arm. She was given an amyl nitrite pearl with relief. Thyroidea sicca was discontinued and for two days she complained of precordial pressure. On August 31st an electrocardiogram disclosed T—1 higher than on August 11th. On September 1st thyroidea sicca grains one-half (grs. ½) daily was again given until September 9th when it was raised to grains one (grs. 1) daily.

On September 25th she was discharged, the electrocardiogram at this time showing QRS—2 slurred on downstroke and QRS—3 low, slurred and notched. T—1 inverted.

She was instructed to return to the out-patient department in 3 months, but did not return until July 6, 1934. At this time the electrocardiogram disclosed: normal rhythm, deep Q—3, QRS—2 and 3 slurred on downstrokes. T—1 and 2 nearly flat but upright. T—3 flat. Maximum amplitude 6 mm. An orthodiagram revealed no pericardial effusion and a heart comparable in size to that on discharge. (Figure No. 3).

COMMENT

The diagnosis of pericardial effusion in this case was based on physical and fluoroscopic findings only, as verification by pericardial paracentesis was not carried out. However, the appearance on detailed study under the fluoroscope seemed conclusive, especially as progress was observed. It is unfortunate that therapy included an initial use of digitalis, in addition to bed rest and restricted fluid intake. The exact response to thyroid medication is, of course, obscured for that reason. The susceptibility of the myxedematous patient to thyroid extract, and the initiation of anginal attacks after such therapy, are observations which have been reported, and are again illustrated in this case.

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Hypercalcemia and Hypophosphatemia; Simulating Hyperparathyroidism; Report of Three Cases

By B. J. BIRK, M. D., and H. H. HUBER, M. D.
Milwaukee

A GREAT deal has been written about the parathyroid bodies, their normal and abnormal functions. In 1925, the work by Mandl[1] and in 1926 by Du Bois[2] revolutionized our knowledge and greatly aided us in the therapy and cure of conditions associated with the disease of the parathyroids. Since then, our medical literature has become profuse with reports of cases of osteitis fibrosa cystica, the "classic" form of parathyroidism. Wonderful strides were made in the surgery of parathyroidism with cure of symptoms. Further laboratory findings were added by many workers but especially by Albright[3] and his co-workers, and Bodansky[4].

In their recent article on hyperparathyroidism, Albright et al[5] have presented this very interesting subject in a most admirable manner—various types and forms of the disease are discussed and complete clinical symptoms and laboratory data are given, differential diagnosis well stated, and the all important treatment emphasized. Throughout the article the important clinical points are being stressed. In their discussion of pathology, the disturbed metabolism of calcium and phosphorus is emphasized as the most important finding: high serum calcium level, low serum phosphorus level, and increase in excretion of calcium and phosphorus in the urine.

Fig. 1 (Case 1)

It would indeed be a futile task to relate additional cases of various forms of hyperparathyroidism and thus further burden the subject. But the authors of this paper, being ever mindful of the definite laboratory data and roentgenological findings of the disease, wish to present three cases neither one of which, in their opinion, is a case of any of the types of hyperparathyroidism, but apparently greatly simulating it.

Case 1. Mrs. F. W., age 62, married (Case of Dr. Wm. Stern, seen by B. J. B.).

Injured on October 11, 1931. While standing at her stove the patient slipped on the floor, sustaining a fracture of middle third of femur (Figure 1). Three years previously (1928) sustained a fracture in the same area and was in a cast eight weeks. Since the time of the first femur fracture the patient had become very morose, walked stooped, vomited occasionally and lost little weight. Since the leg fracture, October 11, 1931, there has been vomiting several times a day. For the past four years the patient has had attacks of substernal pain, radiating down both arms, and came only with excitement or exertion. Family history is essentially negative. Past history: Typhoid, diphtheria, oophorectomy, mumps, pleurisy, pneumonia.

Physical examination: The patient lies quietly in bed, showing apathy. Skin turgor lessened and evident hypotonia of muscles, as shown by the hyperflexibility of extremities. Left leg in cast. A mass, size of a grape fruit, is felt in the right lumbar area; considered to be from the kidney. Blood pressure 146/76. Pulse 74 to 96. Temperature 98 to 100.2. Extension and cast applied. Laboratory findings: Wassermann, Kline, and Kahn negative. R.B.C. 4,060,000 to 3,450,000. W.B.C. 8,550 to 9,450. Hb. 84% to 66%. Poikilocytosis and anisocytosis. Urinalysis: Albumin, slight trace. Sure negative. Bence-Jones proteins negative. Miscroscopic: Few leukocytes, oxalates and urates. Blood Chemistry: Blood sugar 106.4 mg.; Bl. N.P.N. 24.4 mg., 42.3 mg., 35.9 mg.; Bl. Urea N. 10.2 mg.; Bl. Creatinine 1.22 mg.; Bl. Chlorides 487 mg., 490 mg.; Bl. CO_2 Comb Power 72.1 mg.; Bl. Cholesterol 242.7 mg., 179.3 mg.; Bl. Calcium 10.72 mg., 15.88 mg., 15.24 mg.; Bl. Phosphorus 2.45 mg., 2.22 mg., 1.7 mg.; Quantitative Urine Calcium .66 mg. Roentgenograms: Thorax negative. Other bones negative (no evidence of decalcification). Gastro-intestinal: Suspicion of a mass present on the right side of abdomen (extrinsic) causing pressure on bowels. Left femur—pathological fracture through middle one-third, old fracture visualized. Cystoscopic examination: Right kidney—no function to indigo carmine in fifteen minutes. Right ureteral orifice not discernible. Skiodan not well visualized. Diagnosis: Hypernephroma with metastasis. Death sudden, December 9th. Probable coronary occlusion.

Case 2. Wm. R., age 43, white. (Seen at the Veterans' Hospital by B. J. B.)

Original admission: January 23, 1931. Family history irrelevant. Past history negative, no history of venereal diseases. Present illness: Patient states that in 1917, while on horseback, the horse reared up and threw the patient to the ground. This merely incapacitated the patient for a few days. For the past four years the patient has been troubled with pain in the back in the lower thoracic and mid-lumbar regions. This causes a limitation of motion and quite extreme pain on motion. Seasons have no effect on the condition and weather condition do not alter the pain.

Physical examination: The patient does not move about very much because of the pain in his back. The lower dorsal vertebrae are very prominent. First percussion causes pain over the lower dorsal segment and the entire lumbar segment. There is quite extensive muscular spasm due to the pain and causing the entire lumbar and lower dorsal segment to move as a whole in flexion and lateral flexion. Extension of the spine shows movement in the dorsal and lumbar segments due to the relaxation of the muscular spasm. A diagnosis of spinal arthritis of the lower dorsal and lumbar vertebrae was made. Laboratory studies were negative except for positive Wassermann on two occasions. The teeth were extracted as a focus of infection. X-ray showed a slight scoliosis toward the right in the mid-thoracic region but little arthritic changes. Patient improved rapidly after the extraction of the teeth and was discharged from the hospital February 10, 1931. He again entered the hospital April 6, 1931. Entrance complaint: He stated that about

Fig. 2 (Case 2)

Fig. 3 (Case 2)

ten days before entrance while working on the farm he was suddenly seized with pain between the shoulder blades which radiated to the left shoulder and elbow. The pain is sharp in character and knife-like at times. Physical examination disclosed a stooped posture in order to reduce pain to a minimum. There was pain on digital pressure over the upper dorsal vertebrae. The neck was limited on movement due to muscle spasm. However, full range of the neck was possible if plenty of time was taken. Flexion of the spine as a whole was limited to about 45 degrees. There was tenderness on fist percussion over the lower thoracic and lumbar vertebrae. The Wassermann was again strongly positive on two occasions. No x-rays were taken. The patient received five administrations of tryparsamide, six of mercurocol, six of neo-arsphenamine; also physiotherapy treatments, and improved greatly and was discharged from the hospital June 19, 1931. One week after discharge from the hospital, that is, on June 29, 1931, the patient was readmitted for the third time. At this time the patient stated that his neck was getting progressively stiffer and that the pain was becoming more intense. The greatest pain is now in the cervical spine. He stated that on June 24, 1931, while on his way to receive an antiluetic treatment, he jarred his head—since that time he has noticed a wryneck to the right. He could move his head slightly to the left but could not flex nor extend his neck at all. That day he noticed a numbness and tingling in his toes. Soon he lost the sense of touch and the thermal sense in the toes. This gradually extended to the knees and then suddenly extended to the abdomen and the chest. There is also anaesthesia extending from the elbows to the fingers. This, too, was ascending in character. All this time, however, the patient could get about fairly well. Suddenly, three days before, the patient lost the use of the right arm and leg. The left leg could be used to some extent. The forearms, however, could not be moved.

Examination disclosed the patient somewhat emaciated. The head was turned to the right. There was tendernes over the 4th and 5th cervical bodies with some muscle spasm and an exaggeration of the spinous processes of these vertebrae. There was complete tactile and thermal anaesthesia of the body below the anterior axillary folds. The intercostal muscles were sunk and seemed atrophied but were an expression of nerve palsy. The abdomen was flat and there was vasomotor paralysis as evidenced by the lack of sweating below the axillary folds. The muscles of the abdomen were soft and flabby. The abdominal reflexes were absent. There was a positive Babinski and ankle clonus. The K.J's are present and exaggerated. Wassermann was strongly positive. X-ray showed a destruction of the fifth cervical vertebra (Figures 2 and 3). Diagnosis of transverse myelitis due to destruction of the fifth cervical body (luetic) was made. Head traction was applied with fifteen pounds of weight. The next two days saw a clearing up of the sensory disturbances and slowly the patient regained the use of the left arm and leg. The right arm and leg have slowly regained some of their former power but there was a spasticity of the hand and leg and ankle with positive toe findings, etc.

Laboratory findings: Urinalysis, June 6, 1931, dark, amber, cloudy, sp. gr. 1.032, albumin negative, sugar negative, mic. negative. Blood count: Hgb. 100%; R.B.C. 5,030,000; W.B.C. 7,500. Blood Wassermann positive four plus on two occasions. Spinal fluid: Wassermann negative; Ross-Jones positive; Noguchi positive; gold curve 12232000. Blood calcium determination at stated intervals: 12.5 mgm., 13.0 mgm., 14.0 mgm., 15.6 mgm., 15.7 mgm. Blood phosphorus, October 26, 1931, 2.0

mgm. per 100 c.c. blood. Spinal fluid calcium, 5.46 mgm. per 100 c.c. fluid. Urinary calcium .89 mgm. (24 hour specimen). The patient is at home at present. Since March, 1932, when the patient made a partial recovery, having slight use of the right side of body, there has been no change.

Case 3. Mrs. L. M., 65, widow. (Seen by H.H.H.) On May 10, 1933, the patient slipped and fell on her left knee, the right knee striking the left. She was carried home and remained under the care of a physician. She remained in bed for one week during which time the left knee was swollen and painful. The physician desired to aspirate the knee, but patient would not permit it. She walked with crutches for two weeks, and then with a cane. The first part of July the right knee began to pain. She was seen (H.H.H.) on July 11, 1933, at her home at which time the examination revealed her a fairly well developed woman. Both knees were examined. The diameter of the right knee was larger than the left. Flexion and extension of right knee was normal. There was found tenderness over the anterior surface of the right leg near the knee joint. Extension of left knee was normal, flexion was very painful and restricted to 90°. The left ankle was larger than the right, with no impairment of motions at either. Numerous tortuous venules were found over both legs. She limped considerably and favored the left leg. Other findings were negative. X-rays of both knees were taken for comparison. The x-ray of the left knee (Figures 4 & 5) showed arthritic changes. But x-ray of the right knee (Figures 6 & 7) showed arthritic changes of the joint, and a cystic (Paget's) formation in right tibia. This patient was seen only once for an examination. She was requested to return for further blood and x-ray studies but failed to do so. The following information was obtained from her physician later: About the end of August, the claimant began to complain of weakness in her legs and arms and occasional vomiting and anorexia. She was losing weight gradually. About the end of November, 1933, she entered a Chicago hospital. In the course of routine laboratory examination serum calcium and serum phosphorus readings were obtained: 11/12/33: blood calcium 14.4 mgm., serum phosphorus 2.1, and again on 12/2/33 blood calcium 15.2 mgm., and serum phosphorus 2.0. Only x-rays of the pelvis and skull were taken and these were reported negative. The density of bones was not decreased. Surgical interference was deemed advisable, and on December 20th the abdomen was opened and malignancy of liver was found. The patient expired on December 21, 1933. Postmortem was refused.

DISCUSSION

From the study of the above cases, it is apparent that signs of decalcification in x-ray films were lacking as well as other symptoms of hyperparathyroidism. But one constant feature in each case was hypercalcemia and hypophosphatemia, and this would strongly suggest hyperparathyroidism were it not for the fact that other definite signs were discovered. Of course, it is quite

possible that in cases 1 and 3 there was a metastasis to the parathyroid gland with the consequent features simulating hyperparathyroidism and that in case 2 there were lues of the parathyroid causing secondary hyperparathyroidism. Unforunately, no postmortem was obtainable in cases 1 and 3, and case 2 is still alive.

Should, then, hypercalcemia and hypophosphatemia be emphasized as pathognomonic of hyperparathyroidism at all, or should it rather be considered as a secondary phenomenon caused by the excessive bone destruction in certain diseases which may involve the skeletal system? This view is opposed by Cantarow and Hare. It appears to the authors that a further study of blood calcium and phosphorus in malignant diseases and syphilis be made. Should findings similar to those of the authors be found, no matter how small the percentage may be, a parathyroidectomy would hardly be in order in every case of hypercalcemia and hypophosphatemia.

SUMMARY

1. Three cases simulating hyperparathyroidism are presented.
2. Hypercalcemia and hypophosphatemia as pathognomonic findings of hyperparathyroidism are questioned.
3. Should hyperparathyroidism be further subdivided into primary and secondary types?
4. Further clinical and laboratory studies in various diseases, especially malignancy and lues, are essential.

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Hyperparathyroid Osteitis; Case Report

By J. NEWTON SISK, M. D.
The Jackson Clinic, Madison

MR. E. W., age 53, presented himself to the x-ray service of the Jackson Clinic June 5, 1934, from the medical service of the Wisconsin Transient Bureau, Madison Division, with a requisition for x-ray examination of the right knee on account of a low-grade disability. He had the appearance of a well nourished male in good health and gave no history of previous disease or recent injury. His present complaint had a vague beginning early in January, 1934, and had been attributed to rheumatism associated with weakness of the right knee. There had been no pain in the knee, but the patient had experienced weakness and slight disability which caused him to stumble when he walked without his crutches. Physical examination showed nothing more than a small increase in circumference of the right upper leg as compared with the left and slight tenderness to deep palpation posteriorly over the upper end of the tibia. Clinical laboratory examinations were negative, including blood Wassermann. Early in February, 1934, he began to use crutches. The only unusual symptomatic history was a complaint of excessive nervousness during the past year.

X-ray examination was made of the right knee and the patient referred back to the transient bureau. The x-ray film presents a central destructive bone lesion of an unusual type, in the metaphysis of the right tibia. At first glance it appears benign, for the reason that the longitudinal extent seen in the anteroposterior view is probably too great for a malignant growth and for the further reason that the cortex is probably intact except for slight folding in the medial aspect from weight bearing. On closer analysis, however, from the cortical margin of the lateral aspect of the tibia there appears to be soft new bone production from the margin of the tibia extending into the soft parts and at that level a slight scaphoid erosion in the cortical margin of

(Continued on page 68)

Fig. 1. Largest of many cystic areas. Skeletal manifestations of hyperparathyroidism.

Fig. 2. Diffuse granular osteoparosis secondary to hyperparathyroidism.

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« « « EDITORIALS » » »

Business or Busy-ness?

WHILE this writer disclaims having reached the over-ripe age in which the Present is likely to be viewed astigmatically and the Past through rose-colored glasses he is among those who regret the passing of some of the amenities of the "horse and buggy days". Other Victorians have bemoaned the lost arts of conversation and letter-writing and we have much to say in the way of regret for the loss—even though it be doubtful if we have many to listen.

Doubtless conversation was not so interesting way-back-when, as we oldsters like to believe it was. For one thing, the wits of the nineties had no such stiff competition as "The New Yorker", which furnishes the present day "well-known clubman and man-about-town". Cheap newspapers and cheaper radio reception make old stuff, in a matter of seconds, of what in the good old days would have inspired a scribe to whittle a quill and scratch for hours on an epistle to a far-away relative or friend, later furnishing a motive for a series of neighborhood calls.

But be that all as it may, Modernity hasn't yet so successfully outmoded certain kinds of correspondence as some physicians, and many others, seem to think. "Saying it with flowers" doesn't say it as well as a personal card can be made to say it. Telepathy is too doubtful a medium to replace an unobstrusive and well-timed word of appreciation of a referred patient or other mark of favor. Indeed it would seem oftentimes to the cynically minded that about all that our various time-saving devices have been able to do for many of us, is to rob us of the leisure which professional gentlemen formerly had so abundantly and used so graciously. H.E.D.

Urinary Tract Calculi

FOLLOWING the operative removal of renal or ureteral calculi, patients are always advised to return at intervals for observation and any treatments which may be indicated so as to prevent recurrence of the calculi. A great many patients fail to do this, probably because they do not fully appreciate, nor do they understand, the various causes which may operate in producing their stones. Patients with calculi invariably ask "What is the cause of such a stone?" If we keep in mind and discuss with the patient the various known etiological factors, his interest, I believe, will be more readily obtained.

All the etiologic factors necessary for the production of urinary calculi are as yet not

fully understood. Different types of calculi are the result of various etiological factors which may operate in many different combinations. The problem of etiology cannot be laid to any simple formula.

Among some of the most significant points we find a definite geographical distribution. Urinary calculi are more common and exceedingly prevalent in India, China, and Egypt. Holmes and Coplan, on the basis of information obtained from questionnaires submitted to American urologists, concluded that renal and ureteral calculi were more common in southern Florida and southern California than in any other section of the United States, due, as they felt, to the abundance of basic ash in the urine as a result of the ingestion of large quantities of the citrus fruits and vegetables. Scott has shown a definite stone area in southern California. Joly states, however, that in no case can the formation of stones be attributed to an excess of stone-forming substances in the diet.

As to the effect of diet on stone formation, it has been found that stone is much more common in those living on a monotonous diet, than in those who having a good varied diet. Recent experimental data show that stone may be associated with vitamin A deficiency in the diet. Rats fed on a diet deficient in vitamin A show characteristically three changes:—infection in the urinary tract; persistent alkaline urine; and keratinization of the epithelium of the renal pelvis, ureters, and bladder. The mechanism by which such calculi are produced is not clear. Some observers have noted a definite increase in urinary calculi in the central European countries due, as they believe, to the lack of proper food during the war and post war period.

One of the most interesting and important contributions towards etiology of renal calculi has been shown to be hyperparathyroidism. Barney examined 104 patients who had had stones for parathyroid disease by estimation of the calcium and phosphorus content in the blood in the fasting state. Eleven of these patients were found to have hyperparathyroidism. Seven other patients who did not have renal calculi also had parathyroid tumors. It was very interesting to note that of the eighteen patients, twelve were females. In six of the cases, calculi and changes in the bones demonstrable by x-ray examination occurred together. In a little over one-third of the cases, the urine was normal and in the same number the calculi were bilateral. Albright and Bloomberg feel that hyperparathyroidism is so frequent a cause of the formation of calculi in the urinary tract that it must be excluded as a cause in every case where calculus is present. They found commonly in their cases of hyperparathyroidism fine granular casts in the urinary sediment. The granules were shown to contain calcium. These casts could be made to change to hyaline casts by rendering the urine more acid by the oral administration of such acidifying drugs as ammonium chloride.

Heredity is of little importance except where the stones are cystin and where a definite hereditary tendency is noted.

Chronic diseases are the cause of urinary stones in some instances. Prolonged immobilization for fractures and wounds, especially suppurating ones in which the urinary tract becomes infected particularly when the bacillus coli and staphylococcus are the infecting organisms, may be etiological factors.

In spinal injuries and diseases urinary infection plays an important role. Mueller found bilateral urinary calculus in eight of ten cases of fracture of the spine which came to autopsy.

Congenital anomalies of the urinary tract are etiological factors. In the great majority of such cases stasis in the urinary tract is usually present due to the obstructive nature of the lesion.

Males are affected two or three times as often as females. Stones occur most often during the third and fourth decades.

Urinary calculi may be divided into primary and secondary types:

In the primary type the calculus is formed in the apparently healthy urinary tract and is composed entirely of substances found in the urine from which it originates. The calculus may be composed of (a) uric acid; (b) xanthin; (c) calcium oxylate; and (d) cystin.

In the secondary type, the calculus forms as a result of some pathological change in the urinary organs, inflammatory or otherwise, and develops on a performed nucleus.

Undoubtedly the two most important factors in the production of stone are urinary stasis and the consequent urinary infection. It is generally conceded that a urinary tract will not harbor infections for a long period provided there is no interference with the flow from the tubules in the outside world. If stasis continues to be present, it is practically impossible to rid the urinary tract of infection.

Symptoms and Diagnosis: Pain, while present in the majority of cases, is not an invariable manifestation of the presence of renal calculus. When it occurs it may be either a dull ache in the lumbar region or it may be that of the so-called typical renal colic often accompanied by nausea and vomiting. Paralytic ileus with abdominal distention is a frequent accompaniment of renal calculus disease and should be borne in mind in atypical cases of suspected intestinal obstruction. Renal colic can and does result from lesions in the kidney other than calculus, such as the passage of blood clots from a tumor or infection. A urologic examination should clarify the diagnosis.

A typical attack of left renal colic, together with the usual findings of blood cells and a few pus cells in the urine, offers little difficulty in diagnosis. On the right side, the attack must be differentiated particularly from cholelithiasis and acute appendicitis. A full discussion of these differential diagnoses will not be undertaken. In the cases of gallbladder disease, the careful history, physical findings, x-ray and urological examinations are all sufficient.

The differential diagnosis from acute appendicitis is a much more important matter and it should be remembered that an acute retrocecal appendix or an acute elongated appendix hanging over the pelvic brim and resting against the bladder will produce a few red blood cells and a few pus cells in the urine. With a retrocecal appendix, the pain may be referred along the course of the ureter just as in a case of renal colic. If, after careful consideration and study, a doubt still existed it would be much wiser to perform an appendectomy and remove a healthy appendix rather than allow an appendix to go on to perforation and peritonitis when a diagnosis of renal colic from a calculus had been made.

With our modern methods of x-ray examinations, cystoscopic examinations, etc., there should be little if any excuse for not making a correct diagnosis in these conditions where the lesion is a chronic one.

X-ray examination of the urinary tract will reveal approximately 90% of all calculi; some pure cystin, xanthin, and uric acid calculi will not show on an x-ray film, as well as a small percentage of calcium or phosphotic stones due to their composition, size, size of patient and location.

Consider the Husband

WHEN the physician's prenatal advice is first sought, his every attention is directed to the mother-to-be. Little consideration is given the father. That some serious professional advice and attention should be given the husband is evidenced by the trite, but nevertheless significant remark, "I've never lost a father yet."

The husband, as well as the wife, is tremendously concerned with the coming event and is anxious to afford his wife every consideration possible. When the wife first consults the physician, she should be instructed to have her husband call upon the physician for the purpose of instructing him in his responsibilities during the pregnancy and postnatal period.

The husband should be advised of the emotional, mental and physical changes that occur during pregnancy. He should be advised of the possible complications and the course of action to follow when unusual conditions develop. He should be advised of the indications of labor, the frequency of pains just prior to delivery, and when the physician should be called.

Incidently, such a conference with the husband, presents the opportunity for full discussion of a proper fee and arrangements for its payment.

. . . . THE PRESIDENT'S PAGE . . . .

A Magnificent Memorial

ON BEHALF of Dr. Arthur W. Rogers, past president of our Society, and now chairman of the Council, I have the honor and privilege of making an announcement which I regard as of unusual interest to the members of the State Medical Society of Wisconsin, and one which will undoubtedly prove to be of far-reaching significance to the public at large.

For many years past, Dr. Rogers has managed and has owned a controlling interest in the Oconomowoc Health Resort, near Oconomowoc. He bought this property many years ago, and although he suffered the setback of a disastrous fire, he and his wife, during her lifetime, have built a most successful, scientific institution. The institution has prospered financially, and has served a most useful purpose for thirty years in administering to the care of hundreds of patients afflicted with nervous and mental disorders.

The main building of the Sanitarium is practically fireproof, and together with a number of adjacent cottages, is located in a wonderful setting between the two Nashotah Lakes in the heart of Waukesha County. The Sanitarium estate consists of fifty acres of beautiful woodland on the shore of Upper Nashotah Lake, together with a small farm in the background. The gardens are unquestionably among the most beautiful and complete in the state of Wisconsin, and were laid out and started by Mrs. Rogers during her lifetime.

Within the past few weeks, at his own large personal expense, Dr. Rogers has acquired by purchase all of the capital stock of his present institution. He has now caused this entire property, together with a substantial accumulation of surplus in the form of good securities, to be conveyed and transferred to a new corporation, known as ROGERS MEMORIAL SANITARIUM, organized under the laws of this state as a non-stock, non-profit corporation. This action he has taken as a living memorial to his wife, and in a measure, to his own lifework, to the end that this institution may be perpetuated and expanded, continuing to render service at a minimum cost and henceforth without profit.

Furthermore, he has so arranged his affairs, that upon his death, his entire esate will pass to the new corporation as the foundation for an endowment. The income from this endowment will enable the institution to enlarge the scope of its acitivities, to establish a psychiatric laboratory, to hold clinics and postgraduate courses in neurology and phsychiatry, to publish papers, and, in general, to do what it can within its means, not only to conduct a high-grade sanitarium at a minimum cost to its patients, but also towards contributing to the sciences of neurology and psychiatry for the joint benefit of the medical profession and the public at large.

During his lifetime, Dr. Rogers will continue to manage the institution under the direction of a Board of Trustees. Initially, this Board is composed of the following men:

Dr. Arthur W. Rogers, Oconomowoc; Dr. W. S. Middleton, Dean of the Medical School, University of Wisconsin, Madison; Dr. James C. Hassall, Assistant Superintendent of the Institution, Oconomowoc; Mr. Mackey Wells, Milwaukee; Mr. T. H. Spence, Attorney-at-Law, Milwaukee; Mr. Mitchell Mackie, Milwaukee; Dr. Peter Bassoe, Professor of Neurology, Rush Medical College, Chicago.

The actual value of the entire gift will undoubtedly be upwards of a million dollars. The worth of a gift of this kind, however, cannot be measured in terms of money. Much more important than the dollar value, to my mind, is the spirit of the man, who, starting with nothing, has worked up this wonderful institution, and now contributes the entire results of his lifelabors for the joint benefit and interest both of the profession in which he has striven and prospered, and of the public for the continued alleviation of suffering in the generations to come. What an unselfish thing to do, and what a magnificent memorial! In thus providing means to continue the quest for knowledge that will relieve suffering and prolong life, Dr. Rogers typifies the ideal of the medical profession. All honor to him!

In passing, let me take this opportunity to "point a moral" which is obvious, but which cannot be sufficiently emphasized, and that is, that such a gift would not be possible under state medicine. This gift represents the fruition of hard work, careful planning, good management, and conscientious service to the public. Back of all these, however, there had to be ambition, based upon the knowledge that the efforts expended in the private, individualistic practice of medicine bring their just rewards, and that the heights to which a man may attain are limited only by his capabilities and the use of his opportunities to be of service. And it is of this ambition and this knowledge that the proponents of state medicine wish to deprive us. Let us hope that they will not succeed.—*Ralph M. Carter, M.D.*

Society Proceedings

CHIPPEWA

The Chippewa County Medical Society met at Doctor Merton Field's office on November 26th and elected the following officers for the year 1936: President, Rollin Schwartz, Chippewa Falls; Secretary-Treasurer, Dr. Richard Rodgers, Chippewa Falls; Delegate, Dr. W. H. Fortner, Bloomer; Alternate Delegate, Dr. A. W. Overgard, Stanley.

A meeting of the Chippewa County Medical Society was held in the Hotel Northern on December 9th. The following program was presented:

"Right Side Abdominal Pain" by Dr. Arnold Schwyzer, St. Paul.

Discussion by Dr. Joseph Borg of St. Paul.

CLARK

The Clark County Medical Society met at Greenwood on November 21, 1935. A paper on "Gonorrhea" was given by Dr. W. A. Olson of Greenwood.

Dr. M. C. Rosekrans of Neillsville gave a talk on "Undulant Fever".

A general discussion followed. G.G.S.

DANE

Dr. Harry A. Keenan of Stoughton was elected President of the Dane County Medical Society at a meeting of the Society on December 10th at the Madison Club. Other officers elected were Dr. James Jackson, Madison, Vice President; Dr. J. S. Supernaw, Madison, Secretary-Treasurer.

Speakers on the program were Dr. E. F. Schneiders of Madison who spoke on cancer and Dr. J. Newton Sisk, Madison, who discussed medical care of the indigent.

DODGE

The Dodge County Medical Society met on December 12th at the Lutheran Deaconess Hospital, Beaver Dam. Dr. W. S. Middleton, Dean of the Medical School, University of Wisconsin, was the speaker. His subject was "Newer Methods of Treatment of Pneumonia."

At the request of the State Society, this Society voted to have its annual election of officers in October and also that the incumbent officers hold their positions until October next, 1936. These officers are: President, Dr. A. W. Hammond, Beaver Dam; Vice President, Dr. W. E. Bargholtz, Reeseville; Secretary, Dr. R. R. Roberts, Beaver Dam. A.W.H.

GREEN LAKE—WAUSHARA—ADAMS

Dr. J. C. Hassall of Oconomowoc was the principal speaker at the November meeting of the Green Lake-Waushara-Adams County Medical Society which was held in the Hotel Whiting, Berlin. The subject of his address was "Treatment of the Common Mental Diseases". A round-table discussion followed.

JEFFERSON

The annual meeting of the Jefferson County Medical Society was held Thursday evening, December 12th, at which time the following officers were elected: President, Dr. J. F. Dennis, Waterloo; Vice President, Dr. H. O. Caswell, Fort Atkinson; Secretary-Treasurer, Dr. A. C. Hahn, Watertown; Delegate, Dr. H. P. Bowen, Watertown; Alternate Delegate, Dr. W. S. Waite, Watertown. A.A.B.

KENOSHA

The annual meeting of the Kenosha County Medical Society was held on November 27th at the Elks' Club, Kenosha. Dr. W. C. Stewart of Kenosha was re-elected President; Dr. J. F. Riordan, Kenosha, Vice-president; Dr. L. V. Lokvam, Kenosha, Secretary-treasurer; Dr. T. W. Ashley, Kenosha, member of the Board of Censors; Dr. A. F. Ruffolo, Kenosha, Delegate.

MARATHON

On December 16th, the annual meeting of the Marathon County Medical Society was held. Officers for 1936 were elected as follows: President, Dr. W. C. Frenzel; President-elect, Dr. H. H. Christensen; Recording Secretary, Dr. J. K. Trumbo; Treasurer, Dr. J. M. Freeman, all of Wausau.

Legislative Committee: Chairman, Dr. I. M. Addleman, W. A. Green, and J. F. Smith, all of Wausau.

Program Committee: Chairman, Dr. F. C. Prehn; Dr. M. L. Jones, and Dr. V. E. Eastman, all of Wausau.

Board of Censors: Chairman, Dr. P. Z. Reist; Dr. L. M. Pearson, and Dr. H. R. Fehland, all of Wausau.

The Society instructed the Board of Directors to make a tentative contract with the County Board for care of the indigent outside of Wausau for a flat sum or fee schedule, whichever the Board offered, but the agreement to be referred back to the Society for final action. The Society also went on record as disapproving appointment of any of its members for any city or county work except those positions already approved.

MILWAUKEE

The annual dinner meeting of the Medical Society of Milwaukee County was held at the City Club on Thursday, December 12th, at six-thirty o'clock.

The speaker of the evening was Professor H. L. Ewbank of the Department of Speech, University of Wisconsin. His subject was "Dilemmas of Democracy".

The following were elected to office: President-elect, Dr. E. F. Peterson of Wauwatosa; Secretary, Dr. Henry J. Olson; Treasurer, Dr. Joseph C. Grif-

fith; Board of Censors, Drs. E. L. Tharinger and Herman C. Schumm; Delegates, Drs. Norbert Enzer, L. W. Hipke, F. W. Mackoy, Ralph P. Sproule, E. E. Webb, J. W. Smith and William A. Ryan.

OUTAGAMIE

Dr. Guy W. Carlson, Appleton, was elected president of the Outagamie County Medical Society on December 12th at a business meeting preceding a dinner in honor of Dr. G. A. Ritchie, Appleton, who is approaching his fiftieth anniversary in the practice of medicine.

Dr. Carlson succeeds Dr. W. J. Frawley, Appleton, as president. Dr. R. V. Landis, Appleton, was elected Vice-president and Dr. M. E. Swanton, Appleton, Secretary-treasurer.

The Society also voted to make Dr. Ritchie an honorary life member of the County Medical Society.

POLK

The Polk County Medical Society was the guest of Dr. W. B. Cornwall at the Amery Hotel on November 21st. Following the dinner, Mr. James L. McGinnis spoke to the group on the relationship of law and medicine.

PORTAGE

A dinner meeting of the Portage County Medical Society was held at the Hotel Whiting, Stevens Point, the evening of November 26th.

Drs. Karl Doege and R. P. Potter of Marshfield spoke on "X-Ray and Radium Therapy in Diseases of the Pelvis."

Dr. J. F. Smith, Wausau, Councilor of the Ninth District, spoke on the relief situation as it affects the physicians.

At a business meeting held at the Hotel Whiting, Stevens Point, on the evening of December fourth, the following officers were elected: President, Dr. H. M. Coon; Vice-President, Dr. R. W. Rice; Secretary-Treasurer, Dr. E. E. Kidder; Censor, Dr. Erich Wisiol; Delegate, Dr. E. E. Kidder; Alternate, Dr. H. P. Benn; Public Relations and Medical Advisory Committee, Drs. F. A. Marrs, E. Wisiol and H. M. Coon. E.E.K.

RICHLAND

The following officers were elected for 1936: President, Dr. L. L. Hines, Rockbridge; Vice President, Dr. C. F. Bowen, Richland Center; Secretary-Treasurer, Dr. G. H. Benson, Richland Center; Delegate, Dr. George Parke, Viola; Alternate Delegate, Dr. B. I. Pippin, Richland Center. G.H.B.

ROCK

The Rock County Medical Society held its November meeting on the evening of the 26th at Pinehurst Sanatorium, Janesville, as guests of Miss Iva Louise Hartman, Superintendent, and the Board of Trustees which includes Mr. B. M. Palmer, first vice-president of the Wisconsin Anti-Tuberculosis Association.

It was voted to amend the society's constitution so as to hold election of officers in October as recommended by the House of Delegates.

Dr. T. O. Nuzum, Janesville, as program chairman, conducted the following program on tuberculosis:

1. Treatment of Patients at Pinehurst by the staff as shown by x-rays: "Intestinal Tuberculosis" by Dr. M. M. Baumgartner, Janesville; "Results of Compression Therapy" by Dr. Harry Lapp, Janesville; "Minor Surgical Therapy" by Dr. T. O. Nuzum, Janesville; "Major Surgical Therapy" by Dr. T. J. Snodgrass, Janesville.

2. "Activity in Tuberculosis" by Dr. W. H. Oatway, Madison.

3. "Our weapons in Tuberculosis" by Dr. W. S. Middleton, Dean of the Medical School, University of Wisconsin.

4. Discussion by Dr. T. L. Harrington, consultant, Wisconsin Anti-Tuberculosis Association. C.N.N.

ROCK

On December 17th, the regular annual meeting of the Rock County Medical Society was called to order by retiring President H. E. Kasten.

The president announced that a proposed amendment to the constitution to move election of officers forward from December to October would be submitted in the mail two weeks before the next meeting.

Committee reports were submitted as follows:

Ladies Auxiliary—Dr. Jessie Allen.

Insurance Committee—Dr. Wm. Allen.

Outdoor Poor Relief—Dr. P. A. Fox, who reported that Rock County's medical care of those on poor relief was accomplished at a cost of 39% of the minimum set by the Committee on Cost of Medical Care.

Economics Committee—Dr. W. A. Munn.

Public Health and Legislation—Dr. W. T. Clark.

The following officers were elected to serve during 1936:

President—Dr. Willard Sumner, Edgerton; Vice-President—Dr. W. O. Thomas, Clinton; Secretary-Treasurer—Dr. C. N. Neupert, Janesville; Censor (term to expire in 1938)—Dr. H. A. Raube, Beloit, (to succeed himself); Other censors are Dr. W. T. Clark for 1936 and Dr. F. E. Sutherland for 1937. (Both of Janesville). Delegate—Dr. P. A. Fox and Alternate Dr. W. J. Allen held over for another year.

Moved by Dr. Fox and seconded by Dr. Jessie Allen that the secretary be instructed to inquire as to whether Rock County is entitled to another delegate; and that in case it is, this be considered at the next meeting as unfinished business. Carried.

Dr. Kasten expressed his appreciation for the cooperation he had received during the year and hoped he was establishing a precedent by reading a paper as his last official act as president. This paper, "Common Errors in the Clinical Evaluation of Negative Urinary Findings in Urinary Tract Diseases,"

is to be published shortly in "Urological and Cutaneous Review".

The representatives of the Marathon Finance Corporation then presented a medical finance proposition for county-wide application.

Moved by Dr. Fox and seconded that discussion of this proposition be the chief order of business for the January meeting in Janesville and that a committee be appointed to investigate the company and its proposition and report recommendations at the January meeting. Carried.

Meeting adjourned. C.N.N.

SAUK

Members of the Sauk County Medical Society held an annual meeting on December 20th. The following officers were elected: President, Dr. E. V. Stadel, Reedsburg; Vice-President, Dr. Milton Trautmann, Prairie du Sac; Secretary, Dr. Robert L. Fenton, Baraboo; Treasurer, Dr. F. R. Winslow, Baraboo; Delegate, Dr. E. D. Stanton, Reedsburg; Alternate, Dr. Leo A. Hudson, Sauk City; Board of Censors, Dr. Edward McGrath, Baraboo, Dr. Robert J. Hudson, Prairie du Sac, and Dr. J. A. Booher, La Valle.

SHAWANO

At the annual meeting of the Shawano County Medical Society held Wednesday, December 11th, the following officers were elected: President, Dr. L. W. Peterson, Shawano; Vice President, Dr. E. E. Evenson, Wittenberg; Secretary-Treasurer, Dr. A. A. Cantwell, Shawano; Delegate, Dr. A. J. Gates, Tigerton; Alternate Delegate, Dr. C. E. Stubenvoll, Shawano. A.A.C.

SHEBOYGAN

The Sheboygan County Medical Society held a meeting at Rocky Knoll Sanatorium on November 21st. After the dinner, which was enjoyed by forty members and guests, Dr. R. D. Thompson of Wales gave an instructive talk on "The Diagnosis of Pulmonary Diseases".

This meeting also gave our members an opportunity to get acquainted with Dr. C. M. Yoran, the new Superintendent and Medical Director of Rocky Knoll Sanatorium.

The annual meeting of the Sheboygan County Medical Society took place on December 17th. The meeting was devoted solely to business. The following officers were elected for the next year: President, Dr. W. H. Neumann, Sheboygan; Vice-President, Dr. F. A. Nause, Jr.; Secretary, Dr. Wesley Van Zanten, Sheboygan; Delegate, Dr. G. J. Hildebrand, Sheboygan; Alternate, Dr. O. T. Gunther, and Censor, Dr. G. H. Stannard, Sheboygan. A.C.R.

TREMPEALEAU—JACKSON—BUFFALO

At the December meeting of this Society held at Taylor, election of officers was held. The new officers elected at that meeting follow: President, Dr. R. L. MacCornack, Whitehall; Vice-President, Dr. Donald R. Peterson of Independence; Secretary-Treasurer, Dr. R. R. Richards of Blair; Delegate, Dr. J. P. Reinhardt, Fountain City; Censor, Dr. R. L. Alvarez of Galesville.

After the election of officers, a business meeting was held. Dr. M. C. Crane of Taylor, retiring president, and Dr. E. A. Petzke of Hixton acted as hosts. R.R.R.

WAUKESHA

Dr. F. L. Grover of Hartland was elected President of the Waukesha County Medical Society at the annual meeting of the Society held at Waukesha Sanitarium in December. Dr. R. D. Thompson of Statesan was chosen Vice-president and Dr. J. F. Wilkinson of Oconomowoc was re-elected Secretary-treasurer.

WINNEBAGO

Members of the Winnebago County Medical Society were guests of the staff of the Winnebago State Hospital on December 5th at a dinner at six-thirty o'clock. Dr. Gilbert E. Seaman, superintendent, discussed the relations between the medical profession and the state hospital. Neurological and psychological questions were presented by staff physicians.

Election of officers for the year 1936 took place at this meeting of the Society as follows: President, Dr. A. G. Koehler, Oshkosh; Vice-President, Dr. J. P. Canavan, Neenah; and Dr. M. C. Haines, Oshkosh, was re-elected secretary-treasurer; Delegate, Dr. R. B. Rogers, Neenah; Alternate, Dr. J. M. Conley, Oshkosh; Censors, Dr. J. F. Stein, Oshkosh; Dr. G. E. Forkin, Menasha and Dr. M. N. Pitz, Neenah.

UNIVERSITY OF WISCONSIN

Dr. A. J. Carlson, professor of physiology, University of Chicago, presented the memorial lecture for Dr. Charles R. Bardeen on November 26th. The subject of his lecture was "Science, Medicine, and Common Life".

On December 5th, Dr. Walter J. Meek, assistant dean and professor of physiology, University of Wisconsin, gave an address on "The Development of Physiology in America". The meeting was open to the public.

On December 11th, Professor L. J. Cole of the Department of Genetics, College of Agriculture, presented an illustrated lecture on "Heredity in Relation to Medicine". This meeting was also public.

On December 17th, a symposium on Tuberculosis was presented as follows:

1. Tuberculosis—The Problem—Dr. R. H. Stiehm, Dept. of Student Health.
2. The Infectious Agent and its Relatives—Prof. E. G. Hastings, Dept. of Agr. Bacteriology.

3. Dissociations of the Tubercle Bacillus and its Relations to the Disease—Dr. W. H. Oatway, Jr., Dept. of Medicine.
4. Culture Methods in the Diagnosis of Tuberculosis —Dr. W. D. Stovall, State Lab. of Hygiene.
5. Immunity to Tuberculosis—Dr. H. R. Getz, Dept. of Pathology.

MILWAUKEE ACADEMY OF MEDICINE

Members of the Milwaukee Academy of Medicine met on Tuesday, December 17th. The scientific program was composed of the following papers:

"Lung Abscess"—(Autopsy Report) by Drs. W. B. Ford and H. B. Benjamin.

"Total Gastrectomy" by Dr. E. H. Mensing.

"Demonstration of Patients Showing End Results of Thoracoplasty" by Dr. Forrester Raine.

Discussion opened by Dr. Oscar Lotz.

"Peripheral Emboli with Three Case Reports" by Dr. Russell M. Kurten of Racine.

"Traumatic Appendicitis" by Dr. Michael W. Shutkin.

MILWAUKEE OTO-OPHTHALMIC

The December meeting of the Milwaukee Oto-Ophthalmic Society was held at the University Club on December 10th. The following program was given:

"Recent Advances in Ophthalmology" by Dr. F. H. Haessler.

"Management of Glaucoma" (Lantern Slides) by Dr. Raymond C. Warner.

CENTRAL WISCONSIN SOCIETY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

The annual meeting of this Society was held on December 8th and 9th at the Madison Club, Madison. The following program was presented:

Informal dinner Sunday evening, 7:00 o'clock, Madison Club, followed by: A Lantern Slide Demonstration of the Normal Fundus and its Physiologic Variations, by Frederick A. Davis, M. D. Survey of Eye, Ear, Nose and Throat Teaching at the Wisconsin General Hospital and Medical School, by Frederick A. Davis, M. D.

Monday, December 9th

Wisconsin General Hospital, Sixth Floor Lecture Room.

8:30—The Modern Refraction, by Eugene Neff, M. D.

9:15—The Intracranial Complications of Mastoiditis, by Wellwood M. Nesbit, M. D.

10:00—Preparation of the Diabetic Patient for Eye and Ear Surgery, by Elmer L. Sevringhaus, M. D.

10:45—Newer Methods of Anaesthesia with Special Reference to Eye, Ear, Nose and Throat Surgery, by Ralph M. Waters, M. D.

11:30—Studies in Sound Conduction by the Weaver and Bray Method, by T. H. Bast, M. D., and J. A. E. Eyster, M. D.

12:15—Luncheon in dining room of Wisconsin General Hospital.

1:30—Fields of Vision in Intracranial Tumors by Mark Nesbit, M. D.

2:15—Demonstration of a New Splint for Nasal Surgery, by Ralph Stevens, M. D., Resident Physician, Eye Department, Wisconsin General Hospital.

2:30 to 4:00—Clinical Demonstrations by Members of the Staff. Discussion of the Recession Operation for Strabismus, with Presentation of Patients and Moving Picture Demonstration, by Frederick A. Davis, M. D., Sixth Floor Lecture Room.
Presentation and Discussion of Ear, Nose and Throat Cases by Wellwood M. Nesbit, M. D., Room 524.
Presentation and Discussion of Eye Cases, by Eugene Neff, M. D., Room 502.

4:00—Demonstration of the Weaver and Bray Apparatus, by T. H. Bast, M. D., and J. A. E. Eyster, M. D., Medical Building, Basement Room.

Officers elected for the coming year are: President, Dr. E. S. Schmidt of Green Bay; Vice-President, Dr. J. K. Trumbo, Wausau; Secretary-treasurer, Dr. G. L. McCormick, Marshfield; Censor, Dr. D. G. Hugo, Oshkosh.

On Sunday afternoon, from 4:00 to 6:00 o'clock, Dr. and Mrs. F. A. Davis held a reception for the members, their wives and guests at their home in the Highlands near Madison.

THE COUNCIL

The first meeting of the Council for 1936 is to be held at the University Club, Milwaukee, on Saturday, January 4th. At this meeting of the Council officers were to be elected to succeed Dr. A. W. Rogers, Chairman of the Council; J. G. Crownhart, Secretary; Dr. Rock Sleyster, Treasurer,—all of whose terms expired the first of the year.

Other business to have been presented before this first meeting of the Council for the new year included determination of the 1936 budget; action on a special report relating to extension of effort in the field of postgraduate education; consideration of further plans of broadening the field for the delivery of medical service; consideration of a resolution proposing annual address on the organization of medicine before medical schools in the state; consideration of a plan for the delivery of medical service in the District of Columbia; consideration of further high school debate material, and several proposals of the Secretary contained in the report.

Minutes of the Council meeting will be published in full in the February issue of the Journal.

THE WOMAN'S AUXILIARY

President—
Mrs. F. Gregory Connell, 420 Washington Blvd., Oshkosh
President-Elect—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
Secretary—
Mrs. Theodore J. Gunther, 2117 N. 8th St., Sheboygan
Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine
Public Relations Chairman—
Mrs. Arthur J. Wiesender, Berlin
Program Chairman—
Mrs. Ralph M. Carter, 622 S. Webster Ave., Green Bay
Hygeia Chairman—
Mrs. Harold M. Coon, River Pines Sanatorium, Stevens Point
Organization Chairman—
Mrs. Arthur Sullivan, 930 E. Gorham St., Madison
Archives and Historian—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
Press and Publicity Chairman—
Mrs. Earle F. McGrath, 429 W. 6th St., Appleton
Parliamentarian—
Mrs. Robert E. Fitzgerald, 1739 69th St., Wauwatosa
Chairman of Nominating Committee—
Mrs. Arthur J. McCarey, 902 S. Madison St., Green Bay

COUNTY NEWS ITEMS

Douglas County

The December meeting of the Douglas County Auxiliary was held on the fourth, at which time the following officers were elected: President, Mrs. James W. McGill, Superior; President-elect, Mrs. H. J. Orchard, Superior; Mrs. W. H. Schnell, Superior, Vice-president; Mrs. J. H. Weisberg, Superior, Secretary-treasurer.

Committee chairmen chosen included Mrs. V. E. Ekblad, program; Mrs. T. J. O'Leary, Superior, Hygeia; Mrs. Orchard, public relations; Mrs. C. W. Giesen, telephone, and Mrs. Schnell, press and publicity.

Milwaukee County

The Woman's Auxiliary to the Medical Society of Milwaukee County celebrated its fourth birthday at the annual meeting December 13th by a luncheon at the Crystal Ballroom of the Schroeder Hotel, Milwaukee. A large three-layer cake with four candles was in the center of the room with a horseshoe-shaped table around it. The tables were decorated with silvered pine branches and candles.

Many distinguished guests were present: Mrs. F. Gregory Connell, President of the Auxiliary to the State Medical Society of Wisconsin; Dr. Rock Sleyster, Chairman of the Board of Trustees of the American Medical Association; Drs. J. C. Sargent, D. H. Witte, C. M. Echols and C. Fidler,—all members of the Milwaukee County Auxiliary Advisory Council; Mrs. Robert E. Fitzgerald, President-elect of the national auxiliary; Mrs. Eben J. Carey, treasurer of the national auxiliary; members of the Milwaukee County auxiliary; Mr. J. G. Crownhart, secretary of the State Medical Society, and Mr. Theodore Wiprud, executive secretary of the Medical Society of Milwaukee County.

Dr. Ralph M. Carter of Green Bay, President of the State Medical Society, spoke on socialized medicine, pointing out the political influences being brought to bear on this subject.

Mrs. J. M. L. Jensen, soprano, gave a group of Christmas songs, accompanied by Miss Jensen.

A resume of the history of the Milwaukee County Auxiliary was given by Mrs. Henry J. Gramling, who was president-elect of the Wisconsin State Auxiliary in 1931 when the Auxiliary to the Medical Society of Milwaukee County was organized.

The annual reports of officers and committee chairmen stated the average attendance to monthly meetings was 158; there were 28 members with 100% attendance; the total membership is 348. Hygeia Committee reported 573 eight-month subscriptions to Hygeia, and 94 speakers were placed before lay organizations during the year. The educational committee reported at two monthly meetings the work accomplished by the bureau of investigation of the American Medical Association, exposing quacks and quackery.

The nominating committee presented the following nominations who were unanimously elected:

President-elect, Mrs. Eben J. Carey; Vice President, Mrs. Julius H. Sure; Recording Secretary, Mrs. A. R. Langjahr; Corresponding Secretary, Mrs. M. A. Howard; Treasurer, Mrs. J. J. Adamkiewicz; Directors, Mrs. Henry J. Gramling, Mrs. Louis M. Warfield, Mrs. W. H. Washburn.

Mrs. Harry J. Heeb, retiring president, presented the gavel to Mrs. William M. Jermain, incoming president, who urged continued cooperation through the new year.

DOROTHY ENZER,
(Mrs. Norbert Enzer).

Outagamie County

The Outagamie County Auxiliary held a dinner meeting on December 12th at the Conway Hotel, Appleton. There were twenty-five members present. A business meeting followed the dinner with reports of officers and committee chairmen. The October news letter was read, which was followed by election of officers. The following were elected for the coming year: President, Mrs. J. J. Laird, Black Creek; President-elect, Mrs. Carl Neidhold, Appleton; Secretary, Mrs. Albert Leigh, Kaukauna; Treasurer, Mrs. Donald Curtin, Little Chute.

With the new President presiding, plans for the coming year were discussed and committees appointed, after which the meeting adjourned.

Portage County

The Woman's Auxiliary to the Portage County Medical Society met on December second at 2:30 in the afternoon at the home of Mrs. Daniel S. Rice, 704 Main Street, Stevens Point. Mrs. Wayne F. Cowan was assisting hostess. Short talks were given by Miss Alice Eccleston and Miss Margaret Butler. A report of the state convention held in Milwaukee last September was given by Mrs. Harold M. Coon, Stevens Point.

Racine County

The December meeting of the Auxiliary to the Racine County Medical Society was held at the Hotel Racine with Mrs. Frank W. Pope, President, presiding. The principal matter of business consisted in reports of the national and state auxiliary conventions. In the absence of Mrs. L. E. Fazen, Racine, who attended the national convention in Atlantic City in June, Mrs. George Jamieson presented Mrs. Fazen's resume of the sessions. Of particular interest in this report was the fact that the Wisconsin Auxiliary won first place in the Hygeia contest.

Mrs. I. F. Thompson, Racine, presented the report of the state convention held in Milwaukee in September last.

Mrs. Edwin Stilb spoke on the civic council in Racine.

Mrs. Frank W. Pope, Racine, gave a delightful talk on her travels in Norway during the summer.

Rock County

The November meeting of the Woman's Auxiliary to the Rock County Medical Society was held in the Woman's Club, Janesville, Tuesday, November 26th, with sixteen members and two guests present.

Immediately following the dinner, the guest speaker of the evening, Mr. A. B. Murphy of the National American Red Cross, was introduced by the president. Mr. Murphy explained in great detail the structural working of the Red Cross units as a national organization and the local chapters; some of the aims and accomplishments and the two latest projects, namely: 1—The Home Hazard Inspection. Blanks were furnished to the schools by the Home and Farm Program Unit; 2—The Highway First-Aid Stations. It is planned to open 15,000 of these stations all over the United States. The objective is to give first aid only to the injured, and second, to create a hazard consciousness by displaying the large red cross highway sign. Through the cooperation of local authorities, these stations will be placed at the most strategic points and the attendants must complete a 15 standard course given by trained instructors. The equipment for first aid is to be maintained by the Red Cross.

The Wisconsin Highway Patrol is to be trained and equipped with first-aid kits and is to be called the First-Aid Mobile Unit. Most of the instructors in this state are physicians. All units and first-aid stations are to be inspected regularly by trained instructors.

The business meeting was called to order by the President, Mrs. T. F. Shinnick.

The minutes of the last meeting were read and approved.

There was no treasurer's report.

The resignation of Mrs. Stanley Metcalf as President-elect was read. It was moved, seconded and carried that this resignation be accepted with regret.

The President announced the Executive Board appointment of Mrs. Francis Frechette to fill the unexpired term of President-elect.

The resignation of Mrs. T. O. Nuzum as an active member of the auxiliary was read. It was moved, seconded and carried that this resignation be accepted with regret. It was moved, seconded and carried that recommendation be made to the Executive Board that the name of Mrs. T. O. Nuzum be placed on the honorary list.

It was moved, seconded and carried that members be requested to reimburse the Auxiliary for dinners reserved and not cancelled.

Meeting adjourned.

The annual meeting of the Auxiliary was held on December 17th at the home of Mrs. H. E. Kasten of Beloit with twenty-one members and one guest present.

Following a most enjoyable dinner served by the social committee and the president and hostess assisting, the meeting was called to order by the president, Mrs. T. F. Shinnick.

The minutes of the last meeting were read and approved. It was moved and carried that all delinquencies be expunged from the records effective this date, and that the Treasurer of the Woman's Auxiliary to the State Medical Society be notified of this action.

Dr. Jessie P. Allen, Beloit, gave a brief resume of a plan for discussion of cancer among the laity. The Auxiliary members were requested to assist in collecting data for a Tumor Clinic which is to be held at Beloit Municipal Hospital. Further instructions will be given some time later.

Miss Iva Hartman, Superintendent of Pinehurst Sanatorium, Janesville, spoke on some of the activities there and thanked the Auxiliary members for the assistance received.

Annual reports of the committees concluded the meeting.

Sheboygan County

The December luncheon meeting of the Auxiliary to the Sheboygan County Medical Society was held at Guest House in Sheboygan on Wednesday, December 4th.

Guests included Mrs. R. E. Fitzgerald of Milwaukee, National President-elect and Mrs. Eben J. Carey, Milwaukee, national Treasurer. Interesting talks were given by both Mrs. Fitzgerald and Mrs. Carey.

Another guest speaker was Mrs. O. A. La Budde of Milwaukee who is state chairman of conservation

of the Wisconsin Federation of Women's Clubs. Mrs. La Budde gave a most interesting talk on "Conservation and the Tagging of the Christmas Tree" and urged her listeners to buy only tagged Christmas trees so that the pine tree forests of Wisconsin and other states could be preserved.

Newly chosen officers are the following: President, Mrs. W. H. Neumann, of Sheboygan; President-elect, Mrs. F. A. Leighton, Sheboygan Falls; and Secretary-treasurer, Mrs. G. J. Hildebrand, of Sheboygan.

Waukesha County

At the annual meeting of the Auxiliary to the Waukesha County Medical Society which met at the Avalon Hotel, Waukesha, on December 4th, Mrs. F. L. Grover, Hartland, was re-elected Secretary-treasurer; Mrs. R. E. Davies, of Waukesha, was elected President, and Mrs. John Wilkinson, of Oconomowoc, President-elect.

Winnebago County

Members of the Auxiliary to the Winnebago County Medical Society met on November 25th in Neenah at the Sign of the Fox. It was a luncheon meeting and members of the Outagamie County Auxiliary were invited to attend. Forty-five were present.

A short business meeting followed the luncheon. Papers were read by Mrs. Sherman and Mrs. A. G. Koehler of Oshkosh. The State President, Mrs. F. Gregory Connell, Oshkosh, gave a short talk and the Chairman of the Red Cross drive addressed the group. Ideas and plans were exchanged by members of the Auxiliaries, following which the meeting adjourned.

News Items and Personals

Dr. E. A. Pohle, Madison, attended the 21st annual meeting of the Radiological Society of North America in Detroit, Michigan. In collaboration with Drs. L. W. Paul and W. H. Oatway, Jr., he presented a paper on "Routine Roentgen Examinations of the Chest of Patients Admitted to the State of Wisconsin General Hospital During a Three Months Period".

Dr. Pohle was re-elected chairman of the Advisory Committee on Registry for X-Ray Technicians and also a member of the Standardization Committee on X-Ray measurements.

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Dr. Gordon A. Ritchie of Appleton, who is observing his fiftieth anniversary in the practice of medicine this year, was the guest of the Outagamie County Medical Society at a dinner meeting held at the Conway Hotel on the evening of December 12th.

Speakers at the meeting, introduced by Dr. James S. Reeve of Appleton, toastmaster, included Judge Thomas H. Ryan, Mayor John Goodland, Jr., Dr. S. E. Gavin, President-elect of the State Society, Fond du Lac; Mr. George Crownhart, Secretary of the State Society, Madison; Drs. V. F. Marshall, E. H. Brooks, C. E. Ryan and Guy W. Carlson, of the County Medical Society; Dr. H. K. Pratt of the Outagamie County Dental Society; Attorney H. H. Benton, and Dr. Gordon A. Ritchie.

Dr. Ritchie, who was the first president of the Outagamie County Medical Society in 1903 and the first president of the staff of St. Elizabeth Hospital in Appleton, was presented with an upholstered chair from the county society. In presenting the gift, Dr. C. E. Ryan stated that there were two reasons for arranging the program,—one for members of the county medical society to show their appreciation of Dr. Ritichie's services to the county society, and the other to give citizens of the community an opportunity to express their gratitude for his services.

A gift from the county dental society was presented by Dr. H. K. Pratt as a token of the society's "love and highest esteem for Dr. Ritchie".

Dr. Ritchie started practice in Manawa, Waupaca County, in the spring of 1886. He came to Appleton in 1894 and is still active in the profession.

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Dr. L. J. De Swarte, who has practiced in Sheboygan for the past eight years, has moved to Greensburg, Indiana, to establish his practice.

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Dr. Alfred Stollenwerk of Milwaukee has purchased the practice and equipment of the late Dr. R. C. Elliott of Waupaca.

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In recognition of their long years of practice varying from forty-two to forty-seven years, members of the Barron-Washburn-Sawyer-Burnett County Medical Society paid tribute to the following physicians: Dr. H. H. Ainsworth, Birchwood; Dr. W. A. Hazelton, Hayward; Dr. H. G. Hilliard, Minong; Dr. E. J. Knapp, Rice Lake; Dr. W. G. Malcolm, Chetek; Dr. C. C. Post of Barron and Dr. O. M. Sattre of Rice Lake.

Highlights of the program which followed the dinner were amusing experiences of the early days of surgery by Dr. O. M. Sattre, who contrasted the methods then in use with those now prevailing. Dr. H. H. Ainsworth who practiced briefly in Spooner after finishing school, later living in Chicago, then in Idaho and finally in Birchwood, gave a sketch of his own career. Mrs. O. M. Sattre and Mrs. H. M. Coleman of Barron spoke briefly on behalf of

the doctors' wives, each relating incidents in the lives of the country practitioners. Rev. R. W. Parisius paid tribute to the family physician of his boyhood days and gave a picture of the work of physicians during the influenza epidemic.

At the conclusion of the gathering, each of the seven physicians was presented with an engraved memento of the occasion by Dr. J. E. Gillen, on behalf of the county medical society.

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Dr. E. A. Schoenecker of Milwaukee opened an office in Lake Mills recently.

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Dr. W. W. Bauer, director of the bureau of health and public instruction of the American Medical Association, was a speaker before the Woman's Club of Racine. His subject was "Popular Beliefs That Are Not So."

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Dr. Walter O. Paulson, who recently received his license to practice in Wisconsin, is now affiliated with the Midelfart Clinic of Eau Claire.

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Dr. G. E. Forkin of Menasha is recovering from an operation which he underwent on November 23rd. During his illness, Dr. L. M. Cox of Chicago took care of his practice.

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Dr. I. N. McComb of Brillion, Wisconsin, was the honor guest of members of the Calumet County Medical Society on the occasion of his 85th birthday, at a dinner held at Hotel Brillion. This was a surprise party and was attended by Drs. W. L. Boyden and A. J. Wagner of Brillion; Dr. E. C. Cary of Reedsville, who served as toastmaster; Drs. A. F. Slaney and R. J. Winkler of Hilbert; Drs. Knauf, Goggins and Minahan of Chilton; Dr. M. W. Garry of Sherwood; Dr. Knauf of Stockbridge; Dr. E. L. Bolton of Appleton; Dr. A. C. Engel of New Holstein and Dr. F. P. Knauf of Kiel.

Dr. McComb was presented with a beautiful floral offering from members of the Calumet County Medical Society.

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Dr. L. R. Abbott of Wilton, Wisconsin, who has been practicing medicine for fifty years in Vernon and Monroe counties, was the guest of honor at a celebration held on November 23rd at Hett Hall, in Wilton. Besides physicians in Vernon, Monroe and Juneau counties, the anniversary was attended by many of his former patients.

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Dr. John Welton Fisher, 87, medical director of the Northwestern Mutual Life Insurance Company of Milwaukee, completed fifty years of service in the company on December 15, 1935. Starting as assistant medical director, he served in that capacity for eleven years, becoming medical director on October 21, 1896, on the death of Dr. L. W. McKnight, who was appointed in 1864 as the company's first medical director.

STATE RADIO PROGRAM

Radio health messages are presented by the State Medical Society each Tuesday, Wednesday and Thursday morning at 9:00 A.M. These talks are broadcast over the state-owned radio stations,—WHA (940), Madison, and WLBL (900), Stevens Point.

The schedule for this month follows:

January 14	Control of Communicable Diseases.
January 15	Colds and Pneumonia
January 16	Whooping Cough
January 21	Scarlet Fever
January 22	Measley Measles
January 23	Mumps
January 28	Chicken Pox
January 29	Health Through the Ages
January 30	Wearing Glasses
February 4	The Doctor's Radio — (Stethoscope)
February 5	The Thumping Doctor
February 6	Americanitis

LADIES AND GENTLEMEN
YOUR HEALTH!
DRAMATIZED RADIO HEALTH PROGRAMS
of the
American Medical Association
Each Tuesday at 4:00 P.M. over the N.B.C. Net Work

January 14	Diphtheria
January 21	Scarlet Fever
January 28	Health of the Traveler
February 4	Pneumonia
February 11	Little Tips on Home Hygiene

"AN ENJOYABLE HALF-HOUR"

The occasion of his golden anniversary of service was observed by the entire official force and officers of the various agents' associations, including trustees and many general agents, at a dinner in his honor in the auditorium of the home office building on Friday night, December 13th.

Dr. Fisher still continues his full-time, daily duties at the home office and his personal supervision of his department.

BIRTHS

A daughter, Alice, to Dr. and Mrs. Robert Krohn, of Black River Falls, on December 6th.

A daughter to Dr. and Mrs. G. A. Kriz, Milwaukee, on October 30th.

A daughter to Dr. and Mrs. Armin Steckler, Milwaukee, on November 8th.

A daughter to Dr. and Mrs. Roland S. Cron, Milwaukee, on November 13th.

ENGAGEMENTS

Dr. and Mrs. F. Gregory Connell, Oshkosh, have announced the engagement of their daughter, Dr. Jane Connell, to Dr. John F. Card, son of Mrs. John Card, Portland, Oregon. Dr. Jane is now a house physician at Milwaukee Children's Hospital, and Dr. Card is a physician at the Lane Hospital in San Francisco. The wedding will take place in the early summer.

Dr. Nelson A. Bonner, Manitowoc, to Miss Norma Kempfert, daughter of Mr. and Mrs. A. J. Kempfert, Manitowoc.

MARRIAGES

Dr. George William Fox, Milwaukee, to Miss Elise Scott, daughter of Mr. and Mrs. Fitzhugh Scott, Milwaukee, on December 21st.

Dr. A. F. Tessier, Milwaukee, to Miss Ruth L. Kowalke, Milwaukee, on November 15th.

Dr. V. LaMar Baker, Milwaukee, to Miss Louise Ashworth, Milwaukee, on November 7th.

DEATHS

Dr. Frank A. Birnbaum, Marathon, died on November 27th of pneumonia at a Wausau hospital. He had been ill one week.

Dr. Birnbaum was born on September 30, 1900, at La Crosse and was graduated in June, 1927, from Marquette University School of Medicine. He had practiced at Marathon eleven years, and two years ago built a new home and office building on Marathon's main street, where he has since been located.

The deceased was a member of the Marathon County Medical Society, the State Medical Society, and the American Medical Association.

Survivors are his widow and one son, William George, aged thirteen months.

Dr. Mack C. Canan, Madison, died on December 10th at a Madison hospital after a long illness.

He was born in the year 1900 and graduated from the University of Illinois College of Medicine in 1927. After practicing at Hardin, Ill., for a year he came to Madison. He was a member of the staff of St. Mary's Hospital, Madison, and of Morningside Sanatorium.

Dr. Canan was a member of the Dane County Medical Society, the State Medical Society, and the American Medical Association.

He is survived by his widow and two sons, Michael Edward and George Patrick.

Dr. William F. Stuessy, Blanchardville, died in a Monroe hospital on November 29th of injuries received the night of November 21st when he was hit by a car. Dr. Stuessy was returning with his family from a ten-day trip to Canada and was near his home when a rear tire went flat. He was struck while changing the tire. As a result of injuries, both legs were amputated.

Born on November 21, 1904, in New Glarus, he graduated from Monroe High School and North Central College at Naperville, Ill., and two years later received his master's degree at the University of Wisconsin. He was graduated from Rush Medical College in 1930 and then purchased the practice of Dr. H. B. Moe of Blanchardville.

Dr. Stuessy was a member of the Lafayette County Medical Society, the State Medical Society and the American Medical Association.

He is survived by his widow, two sons, Milton, Jr., 6, George, 5, and one daughter, Janet, aged two.

Dr. George Saunders, Superior, died on November 26th in Hibbing, Minnesota. He had been in ill health for many weeks.

Dr. Saunders was born in 1862 and was a graduate of the University of Vermont College of Medicine in 1891. He had practiced in Superior since 1899. Dr. Saunders recently returned from a visit to Jamaica where his son is engaged in research work.

He was a member of the Douglas County Medical Society, the State Medical Society, and the American Medical Association.

Dr. Saunder's wife preceded him in death two years ago.

Dr. Edward S. Hull, Milton Junction, died on December 4th.

He was born on April 19, 1853. He was a graduate of Bennett College of Eclectic Medicine and Surgery, Chicago, in 1891 and in the same year moved to Milton Junction to establish his practice.

He is survived by his widow, one son and four daughters.

Dr. Leopold Schiller, Milwaukee, died on December 10th at a Milwaukee hospital after an illness of several months.

Dr. Schiller was born in 1861 and was a graduate of Columbia University College of Physicians and Surgeons in 1882. For twenty-one years, Dr. Schiller had been in city health work as assistant superintendent of the bureau of communicable diseases and as a resident staff physician at South View Hospital. Postgraduate work was continued in Berlin, Munich and Vienna. He was a former assistant professor of clinical dermatology of the old Milwaukee College of Physicians and Surgeons. He was a charter member of the Milwaukee Academy of Medicine and one of the founders of the Medical Society of Milwaukee County.

He was a member of the Medical Society of Milwaukee County, the State Medical Society, and the American Medical Association.

He is survived by a sister, Mrs. W. J. Kershaw, and a brother, Julius, both of Milwaukee.

Dr. William Thorndike, Milwaukee, died on November 23rd.

He was born in Milwaukee in the year 1870 and was educated in the public schools of that city, Noble's Preparatory School at Boston, and graduated from Harvard Medical College in 1896. After serving for two years on Boston hospital staffs, Dr.

Thorndike returned to Milwaukee. He studied for a time at the University of Vienna and in 1903 was appointed Assistant Medical Director of the Northwestern Mutual Life Insurance Company, Milwaukee, with whom he was affiliated up to the time of his death.

Dr. Thorndike was a member of the Medical Society of Milwaukee County, the State Medical Society, and the American Medical Association.

SOCIETY RECORDS

New Members

Herbert F. Kenny, 267 W. Main St., Waukesha.

Claude F. Schroeder, Amherst.

Joseph P. Wild, 425 E. Lincoln Ave., Milwaukee.

Robert J. Bach, 404 E. Lincoln Ave., Milwaukee.

Milton G. Klumb, 4815 W. North Ave., Milwaukee.

G. S. Flaherty, 928 Milwaukee Ave., South Milwaukee.

Arthur H. Knudson, 425 E. Wisconsin Ave., Milwaukee.

E. A. Backus, 2682 N. 27th St., Milwaukee.

Lawrence C. Sass, 1535 W. Center St., Milwaukee.

Jerome W. Fons, 1315 W. Lincoln Ave., Milwaukee.

C. E. Roach, 4332 N. Oakland Ave., Milwaukee.

Frank E. Rettig, 3504 W. Villard Ave., Milwaukee.

Emil Franklin, 709 N. 11th St., Milwaukee.

F. J. Schubert, 933 W. Mitchell St., Milwaukee.

B. A. Lungmus, 3103 N. Green Bay Ave., Milwaukee.

E. P. Peake, 131 Main St., Oshkosh.

O. E. Damp, Birnamwood.

J. A. Megna, 1445 N. Cass St., Milwaukee.

J. A. Davies, 3602 N. 16th St., Milwaukee.

Nina Tomkiewicz, 920 N. 15th St., Milwaukee.

A. J. Schramel, 1537 W. Fond du Lac, Milwaukee.

C. O. Diamond, 425 E. Wisconsin Ave., Milwaukee.

C. A. H. Fortier, Jr., 231 W. Wisconsin Ave., Milwaukee.

Changes in Address

J. D. Fuller, Baraboo to Cadott.

W. J. Miller, Madison to Wisconsin Dells.

L. J. De Swarte, Sheboygan to Greensburg, Indiana.

Paul L. Eisele, Ripon to 1461 Fourth St. South, Wisconsin Rapids.

CORRESPONDENCE

CANCER OBSERVATIONS

To the Editor of The Wisconsin Medical Journal:

Concerning Cancer and Its Behavior During Pregnancy

I have, for some time, been interested in the clinical behavior of tumors, especially cancer, during pregnancy. Because of certain observations, I have evolved a theory concerning the cause and a possible clue to the cure, or the spontaneous retrogression of cancer.

It would be of great interest and help to me to hear from any of the readers of the journal about any observations that they may have made upon the behavior of tumors and cancer in women, who were pregnant during the course of the disease. My own observations concern the behavior of fibro-myomata, before, during, and after pregnancy. On numerous occasions, I have performed myomectomies on young women, who, at some later time, became pregnant. On several occasions, I performed myomectomies on women pregnant three or four months. In all of these women there were left, of necessity, numerous smaller uterine myomata. When these women were later operated upon, either for some condition other than the original condition, or when the latter were subjected to cesarean section, there were no semblance of the fibroids to be found. Several of our gynecologists report similar findings, and others mention a like disappearance of desmoid tumors.

Hence, my theory, concerning cancer, is intimately associated with pregnancy.

Heretofore, research workers, devoting their studies to the cause and the cure of cancer, have directed their efforts to finding some method of destroying the cancer cell, either by chemo- bio- or radiumtherapy. My ideas, on the contrary, however, are concerned not with the destruction of the cell, but rather to the encouragement of the growth of the cancer cell, (which is apparently an embryonic cell) in order that it may continue to ripen and develop into a mature one.

Embryonic cells, living in a mature host, are potentially wild cells, and when they mature they become tamed and orderly. In grading malignancies, it is an established fact that the more a tumor tissue is undifferentiated, or the nearer it approaches the emybryonic state, the greater is its malignant potentiality.

I am particularly interested in the development of the fertilized ovum shortly after it assumes a parasitic existence, with the mother as the host. It is dependent on the mother for its nutrition and its respiration, while at the same time it is free to exercise its prolific cell division. Reproduction by fission is its greatest proclivity. This is evidenced by the marked nuclear and mitotic activity of the cells.

I believe that there is present, somewhere in the body of the pregnant host, a hormone which controls the orderly growth of the embryo, and the essential ingredient of this substance has a ripening or maturing effect upon embryo cells. Now, if this hypothetical ripening hormone, (for clarity, let us call it hormone-x), is supplied to the embryo cells in suitable amounts, there follows an orderly and complete ripening of each embryonic cell into a mature one; and a cancer-free individual results. Should, however, this ripening process be defective or incomplete, due to an hereditary lack of ripening

substance in the mother, it would follow that groups of embryonal cells would remain untreated and unripened, and these cells would make up embryonic rests or cell inclusions. (In Cohnheim's theory of cell inclusions the process of their formation is mechanical). Given a normal mother, with normal hormone-x, one can safely say that a young individual, closer to his mother, by time, than an older person, still retains this hormone-x to a greater degree, and is, therefore, able to ripen any embryo cells that might still be present in his body. Hence, one sees less malignancy in the young, and as the individual approaches middle life his ability to fabricate or retain hormone-x becomes perceptibly lessened or even absent. And if there are any embryonal rests or inclusions present in that individual, they, upon trauma or continued irritation, start anew on their reproductive debauch, and thus cancer follows.

I am, therefore, firm in the belief that the mystery surrounding the cause of cancer is definitely related with the biological process that occurs during pregnancy, and the cure of cancer will follow the isolation of a cell ripening hormone, whose activity is most pronounced during the pregnant state of the mother.

Max Bornstein, M.D.,
205 E. Wisconsin Ave.,
Milwaukee.

Medical Economics

OLD AGE PENSIONS

Beginning the first of the year, each month thereafter will probably see an increasing number of Wisconsin's older people receiving old age pensions. The question has arisen as to who is to finance medical service for those receiving old age pensions. Obviously under the usual $30.00 a month pension, the pension itself will provide insufficient funds for medical and surgical treatment.

Our state law provides that those receiving old age pensions are entitled to no other form of relief from the state or any subdivision of the state *except for medical and surgical assistance.*

Earlier constructions of this section by the Attorney-General leads to the conclusion that old age pension funds are not *themselves* available for medical relief, but that such medical relief must be afforded through the operation of chapter 49 of the Statutes (authorizing medical relief for indigents) and chapter 142 of the Statutes (providing for hospitalization of patients at home or at Madison under the Wisconsin General Hospital Law).

When physicians are called for treatment of those receiving old age pensions, such calls should be authorized under one of these two sections of the Statutes if reimbursement for such services is to be had.

NEW NARCOTIC LAW

In the December issue of the Wisconsin Medical Journal there was published a summarization of the new uniform State Narcotic Law as it affects Wisconsin physicians. Under this law the State Board of Health is empowered to set up forms for the keeping of records. One section of the law provides, however, that the physician who keeps forms in accordance with the Federal Narcotic Act will be considered in substantial compliance with the Wisconsin law. The only important addition to the Federal required records is that under the State law physicians who have a loss of their own narcotic supply from any source must make a record as to the date the loss was sustained, the quantity affected, and how and in what manner the loss was incurred.

If you have not read the summarization of the new Wisconsin Narcotic Law, turn back to your December issue now and read it carefully.

IT PAYS TO READ

A representative of the Compensation Division of the Wisconsin Works Progress Administration was in the office of the State Society during December. Questioned as to how promptly physicians' statements were being cared for, he replied that some physicians apparently were not reading their Medical Journal. He pointed out, for instance, that in the November issue complete instructions were contained for the method of submitting physicians' statements. He stated that when statements were not so submitted they had to be returned for correction and

much delay and even question as to the amount resulted.

Incidentally this representative complimented your Journal on being alive to the needs of the physician reader and supplying him with just such material as this more promptly than any of the many other journals in allied fields.

SOCIAL SECURITY TAX

Under the Federal Social Security Law passed by the last Congress there are four separate taxes therein incorporated. One of these affects only employers of eight or more employees, but at least two others may affect in their application every physician in the state. A careful analysis of the tax features of the Social Security Act will be contained in the February issue of this Journal.

INCOME TAX REPORTS

In accordance with the custom of many years' standing the February Journal will also contain data of vital interest to every physician called upon to submit State and Federal income tax reports. The data published a year ago is now in the hands of state and federal authorities for revision.

Deductions and depreciations that apply to physicians because of their professional occupation are covered in full in these reports. If you do not make out your own income tax blanks be certain to take the February Journal to your income tax consultant, for many points in the law are covered which permit deductions and depreciations not ordinarily accruing in other walks of life that do not have professional aspects.

A WARNING

During December a representative of the Federal Bureau of Investigation, U. S. Department of Justice, 1021 Bankers' Building, Milwaukee, called at the office of the Society to warn physicians against a criminal who poses as a physician and then cashes checks.

The person concerned uses the aliases of Dr. Robert C. Caldwell, Robert Caldwell, Robert Coldwell, and Robert Calout. He states that he is from Virginia and has been sent out by the U. S. Public Health Service to make examinations of hospitals and clinics. He is well versed in medicine and actually makes a few diagnoses to gain confidence. He entertains local physicians and then leaves without paying bills, and frequently with worthless checks in his trail.

Any physician coming in contact with this person is urged to call the Federal Bureau of Investigation whose telephone number is Daly 3431. The description of the "doctor" is forty-four years of age, height 5 feet 8 inches, weight 140, dark hair parted on left side, delicate build, medium complexion, small feminine hands, brown eyes, straight Roman nose, a sore on right cheek which may be cancerous, conservative in dress, wears an A. P. S. pin on left lapel, a diamond tie pin with the initial "C" and has a noticeable Southern accent.

CRIPPLED CHILDREN

In the December issue of the Journal a rather extensive list of committees of the Society was reported with their composition. Few appreciate how active these committees are in the interest of the membership.

One of the committees concerned with medical problems revolving about crippled children, has had five meetings within five weeks and none of the meetings listed have lasted less than three hours. Through such splendid committee effort, given at great sacrifice of time by the committee members, the proper health interests are preserved for the public and the joint interest of the profession is thereby promoted.

Have you a problem that may confront other members? You are invited to send it to the Secretary of your Society for immediate reference to one of the many active committees of the Society.

AN EARLY CAMPAIGN PLEDGE

Members of the Society have undoubtedly read of conferences held by nine liberal groups in Wisconsin looking towards unanimity of political action, particularly in the matter of electing legislators. While the conference cannot write platform pledges, still it is of particular interest to note that in a generalized statement of certain beliefs of the conference, it was stated that one of the

needs of the state was accident and sickness insurance with joint Federal and State participation.

Shortly after the conference in an editorial on "The Way Toward Socialized Healing", the Milwaukee Leader declared that "a large majority of the members of the Medical Society of Milwaukee County, it is reported, have voted in favor of a plan for the installment paying of doctor bills and prearrangement for the budgeting of hospital costs. The plan is a recognition of the unsatisfactoriness of the present conditions, and it is a step on the way toward socialized medicine even though it may not be so intended.

"Socialized health service will come. Perhaps it will come through the expansion of existing health departments. Very likely its coming will be delayed until after socialization along other lines will have made more progress. When it comes, it will be necessary that patients be given their choice of the various schools of healing; also that the right of private practice be maintained for those doctors who wish to follow it and those patients who wish to patronize it."

NOT THE TRUTH

In connection with the short quotation from the long editorial given very prominent display in the Milwaukee Leader referred to above, the attention of our reader is called to the fact that a majority of the members of the Medical Society of Milwaukee County have not voted in favor of a plan for the installment paying of doctor bills and prearrangement for the budgeting of hospital costs. Inquiries were made by the Society of that county to ascertain whether its own Committee on Medical Economics should continue its study and if so, what type of plan should be particularly investigated and reported to the Society. In the December issue of the Milwaukee Times it was reported that 250 members of the Society had answered this questionnaire. This is approximately one-third of the membership and even so, those responding did not vote for any plan, but rather expressed their sentiment that certain types of plans should be investigated.

CONTINUOUS STUDY

In the past three years a very considerable amount of money of the State Society and a very large amount of the time of its officers have been devoted to the study of experiments in many other states. Some of the more apparently outstanding have been made the subject of personal study. A further study of another plan will undoubtedly be authorized by the Council at its January meeting.

In making these studies the organized profession of Wisconsin is ascertaining in the joint interest of the profession and the citizenry what changes, if any, in the methods of the rendition of medical service can be made with some little assurance of success. These studies are a part of the continuous effort of the Society but the fact that they are made does not serve in itself as a commitment that some immediate and drastic change is necessary. The contrary is true.

THE CULTS AGAIN

It is also of interest to note that the Leader's editorial comments on the necessity of including the cults in any plan for sickness insurance. This is no new editorial policy, but the re-assertion of an old one so far as the Leader is concerned. It does not fit with the claims of the propagandist for sickness insurance that the adoption of such a system will prevent the waste of human lives and money that results from the use of cults and patent medicines. But it does fit with any practical realization of what actual legislation on this subject would contain. In other words, ideals might well be sacrificed to political expediency,—something that the propagandists are reluctant to face or else something that they are wholly ignorant about.

MATERIAL AVAILABLE

The members are again reminded that the State Society has distributed thousands of pamphlets relating to various phases of the consideration of sickness insurance, state and socialized medicine. A set of these pamphlets is available without charge for any who are interested. Should inquiries be made of you by high school students or discussion groups, ascertain whether they have this material. If not, send their names to

the State Society and the pamphlets will go forward the same day the request is received.

SPEAKING FOR MEDICINE

It is particularly unfortunate that some physicians occupying more or less prominent positions in institutions that hold the public trust, take advantage of that position to give views on the question of socialized medicine that are in no way representative of the thoughts of 99 per cent of their colleagues. Frequently thoughtless statements, and certainly statements based on ignorance, are given a publicity that is nation-wide.

May we suggest to our members that if they are asked to address any public audience on this subject that they prepare in typewritten form a page or two summarizing their statements. This may then be presented to any representative of the press that is present and will go far to insure accurate quotations of the speaker. The subject of socialized medicine is a complicated one and the press is entitled to have a formal statement given it rather than being forced into trying to report what the speaker has to say on a subject that is quite foreign to consideration of the average newspaper man.

The Role of the Physician in the Care of Unmarried Mothers and Adoptive Children; New Laws Summarized

By DOROTHY WAITE

Field Representative, Juvenile Dep't., State Board of Control, Madison

THERE has been a great change in the organization of child welfare work in Wisconsin during the past quarter of a century. In the field of child care and child placing there have developed specialized agencies trained and experienced workers who are well qualified to do this work.

There has been a decided lack of publicity through which the people of the state could keep informed of these changes which have been effected—partly due to the fact that the agencies and workers have been too engrossed with new responsibilities and programs within the organization to make the communities aware of their existence and uses.

It is, therefore, not uncommon for a physician or some other person not trained or licensed to do this sort of work to be approached by some unmarried mother or illegitimately pregnant woman who feels she must give up her child, asking that the physician assist in finding an adoptive home. It is frequent also that some interested married couple wanting to adopt a child turn to the family physician in an effort to locate a child. It seems natural and reasonable that the physician be asked to give his assistance to these matters because of the nature of his profession and its close alliance to social problems.

Today the role of the physician in meeting this problem should be that of counselor, referring the parties involved to licensed agencies who specialize in this work.

In Wisconsin there is a responsibility for the protection of children placed on the State Board of Control by the Statutes of 1929, which read:

> Ch. 46.03 (11) The board shall promote the enforcement of all laws for the protection of mentally defective, illegitimate, dependent, neglected, and delinquent children, except laws whose administration is expressly vested in some other state department. To this end it shall cooperate with juvenile courts and all licensed child welfare agencies and institutions of a public or private character, and shall take the initiative in all matters involving the interest of such children where adequate provision therefor has not already been made or is not likely to be made.

The Statutes also make special reference to the illegitimate child as follows:

> Ch. 46.03 (12) When notified of the birth or expected birth of an illegitimate child, the board shall, through advice and assistance of the mother, or if necessary, independently of the mother, see to it that the interests of such child are safeguarded, the appropriate steps are taken to attempt to establish the paternity and that there is secured for him

the nearest possible approximation to the care, support and education that he would be entitled to if born of lawful wedlock.

The Juvenile Department of the Board of Control has been given the responsibility of supervising this work, and it is therefore necessary, either through its own field staff or through assistance of the licensed child welfare agencies and workers, to see that satisfactory care, support and education is secured for each child. Because the staff of the Juvenile Department is very limited, much of this work is done by these private agencies under the supervision of the Juvenile Department of the Board of Control.

The law requires the maternity hospitals of the state to notify the Board of Control of the admission of unmarried mothers or of illegitimately pregnant women.

Ch. 48.45 (2) Whenever any woman is received in a maternity hospital because of pregnancy or in childbirth or within two weeks after childbirth, such hospital shall use due diligence to ascertain whether such patient is married; and, if there is reason to believe that her child is or will be when born an illegitimate child, such hospital shall report to the State Board of Control within twenty-four hours by registered mail, the presence of such woman.

Since these laws were passed in 1929, there has been a total of 9,510 (December 20, 1935) cases of illegitimate births reported to the Board of Control. Reports are often received from other sources, such as physicians, attorneys, private agencies, judges, and public agencies. The department remains actively interested in each case until the child is sixteen years of age, unless the case is closed for one of the following reasons:

1. The child has been adopted.
2. The parents of the child have married and the birth has been legitimatized.
3. The child has died.
4. The child has left the state.

There are certain standards and policies which the agencies are expected to maintain, and it is hoped that every physician will become familiar with this program of child welfare in order that he may be of assistance in advising the mother or adoptive family who comes to his attention.

The plan is to have every unmarried mother or illegitimately pregnant woman reported to the Board of Control referred to some licensed private agency, public agency, or reliable individual worker in the state. Generally the Catholic girls are referred to one of the several Catholic agencies in the state. There are also two Lutheran agencies who work in certain parts of the state with Lutheran children. There is another private agency which will accept unmarried mothers of any denomination.

The agency or worker is expected to assist the unmarried mother in making satisfactory plans for confinement. It is also urged that there be a continuance or re-establishment of her contact with her family. There is a regulation of the Board of Control that every unmarried mother shall nurse her child for three months if it is physically possible. This regulation was made some years ago, but has been discussed by the Board of Control and by the agencies on several occasions since. It is believed that the nursing period insures a better physical start in life for the child, and also enables the mother to make a more sane and unemotional decision regarding her desires and plans for her child. If the girl does not wish to remain in her own community for confinement, there are several good maternity homes in the state. She may enter one or two months before confinement and must remain for the three months' nursing period. It is sometimes found that the mother's story concerning the alleged father of her child changes considerably after the birth of the child. This is a much better time to establish paternity. The worker is expected to make every effort to get a verification of the facts given her by the mother regarding the father of the child. He should be approached with as much consideration as the unmarried mother. Paternity should be established for every illegitimate child when it is possible. The Wisconsin law permits an adjudication of paternity and a settlement without a public hearing or trial and can be drawn up and filed by the District Attorney, with the approval of the Judge. The District Attorney is responsible for the prosecution of these cases. Frequently when an unmarried mother confides in a physician, she fears the publicity which she thinks an agency or official would bring

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to the case. Workers are expected to respect the confidence of the unmarried mother and to endeavor to protect the reputation of the mother for her own sake as well as for the future interests of the child. This particular provision in the law for private hearings and records has been of great benefit in achieving this purpose. A law was passed by the 1935 legislature making it necessary for the counties to keep all records of illegitimate births in a closed file. After an adjudication of paternity is made, a copy of the judgment is sent to the State Bureau of Vital Statistics and the name of the father is placed on the birth certificate of the child. If a mother marries the father of her child, the birth certificate is changed to read "legitimate" instead of "illegitimate".

CHILD PLACEMENT LAWS

Physicians should be especially aware of child placement laws in Wisconsin. Whenever a mother decides she must release her child for adoption, the services of a licensed child welfare agency should be obtained. The Wisconsin Statutes read:

> Ch. 48.37 (1) No person, other than the parent or legal guardian, and no firm, association or corporation, and no private institution shall place any child in the control, and care of any person, with or without contract or agreement, or place such child for adoption, other than a licensed child welfare agency.

In the placement of a child for adoption there are many grave questions to be considered. It is too often interpreted as simply a satisfactory way to settle the fears and hysterical state of mind in which an unmarried mother often is found before and immediately after confinement. At this time the mother often requests and consents to a plan which she may regret exceedingly a year or two later, or even several months later, when she finds it might have been possible to care for her own child. The services of the trained children's worker are intended to prepare available resources and prevent permanent separation of mother and child without serious consideration by the mother. When it is decided that the child must be placed for adoption, the most suitable home available must be secured for this particular child. It is assumed that before this is done the physical and mental background of the child has been thoroughly investigated to see that the child may not inherit some physical or mental trait from either the father or the mother, which may bring unhappiness to the adoptive parents later. The laws of the state require that an investigation should be made of the former environments and antecedents of the child to determine whether he is a proper subject for adoption, and of the home of the petitioners to determine whether they have a suitable home for the child. In the case of an illegitimate child, the consent of the father is not necessary, but the consent of the licensed child welfare agency to which the child has been committed; or if there is none, the consent of the Board of Control is required.

The child involved in all of this investigation is defenseless, and the action taken by the agency determines the future course of the whole life of the child. For this reason the interests of the child should be paramount in the placement and should be undertaken only by trained and experienced workers. When a licensed agency is employed they are permitted to take guardianship of the child; this right is given to them by the Juvenile Court and enables them to place the child in a home not known to the mother. This procedure is most advisable since it saves both child and adoptive family from future unhappiness and embarrassment. Because of the physician's contact with the mother, he is asked many times to assist prospective parents in securing a child. Because of the complications and real dangers to the child, resulting from bad placements, the physician is urged to refer all matters of this kind to the licensed child welfare agencies of the state or to the Board of Control who can put him in touch with the proper agency.

Most doctors do not know that by assuming the responsibilities for the placement of a child the Wisconsin Statutes specifically provide for a penalty. This section of the law reads:

> Ch. 48.40 (1) Whenever the State Board of Control shall be advised or shall have reason to believe that any person is conducting or acting as a child

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welfare agency in this state without being licensed as in this chapter provided, it shall make an investigation to ascertain the facts. If it finds that such person is so acting without a license, it may either issue a license to the agency conducted by such person upon application therefor, or may cause a prosecution to be instituted under the provisions of section 48.41.

Ch. 48.41 (1) Any person who shall act as a child welfare agency without a license as provided in this chapter or who shall violate any of the provisions of the statutes relating to the organization, conduct and operations of child welfare agencies shall upon conviction thereof be punished by a fine of not less than ten nor more than five hundred dollars or by imprisonment in case of an association or a corporation may be imposed upon its officers who participated in said violation.

This also applies to the conduct of maternity hospitals, who are also called often regarding children who may be eligible for adoption.

Ch. 48.45 (1) No person conducting or in any way connected with the conduct of any maternity hospital shall in any way directly or indirectly dispose of children in any manner.

Ch. 48.47 Any person, firm, association or corporation found guilty of violating any of the provisions of sections 48.42 to 48.45 regulating maternity hospitals, shall be punished by a fine of not less than ten nor more than five hundred dollars, or by imprisonment in case of an association or corporation may be imposed upon its officers who participated in said violation.

Even though these laws place definite restrictions upon the physician regarding work which in the past years has been more or less assumed by him, his assistance to the child placing agency is often invaluable. His intimate association and his knowledge of the personalities of the family enable him to assist the children's worker in considering the suitability of the home for the child. It is the duty of the physician to become familiar with the laws and practices regarding adoption and to cooperate with child placing agencies. These agencies should respect the confidence of the physician and recognize the benefit of his advice, and so combine the efforts of both, in conformity with the law, to bring about the best possible care for each child.

The Journal Book Shelf

BOOKS RECEIVED FOR REVIEW

New Pathways for Children with Cerebral Palsy. By Gladys Gage Rogers, director of Robin Hood's Bar, a camp school for children with cerebral palsy, and Leah C. Thomas, director of therapeutics at Robin Hood's Barn. Price $2.50. The Macmillan Company, New York.

Essentials of Psychopathology. By George W. Henry, associate professor of psychiatry, Cornell University Medical School, New York; attending psychiatrist, The New York Hospital, New York City. Price $4.00. William Wood & Company, Baltimore.

Demonstrations of Physical Signs in Clinical Surgery. By Hamilton Bailey, F.R.C.S. (Eng.) Surgeon, Royal Northern Hospital, London. Fifth edition, revised. Price $6.50. William Wood & Co., Baltimore.

Regional Anatomy. By J. C. Hayner, B.S., M.D., associate professor of anatomy, assistant surgeon, Flower Hospital; assistant and visiting surgeon, Metropolitan Hospital, New York, N. Y. Price $6.00. William Wood & Co., Baltimore.

Medical Treatment of Gallbladder Disease. By Martin E. Rehfuss, M.D., clinical professor of medicine at Jefferson Medical College, Philadelphia, and Guy M. Nelson, M. D., instructor of medicine at Jefferson Medical College. Cloth, $5.50 net. W. B. Saunders Company, Philadelphia.

Diseases of Women. By Harry S. Crossen, M.D., professor emeritus of clinical gynecology, Washington University School of Medicine, and Robert James Crossen, M.D., instructor in clinical gynecology and obstetrics, Washington University School of Medicine. Eighth edition, entirely revised and reset. Price $10.00. C. V. Mosby Co., St. Louis, Mo.

Immunology. By Noble Pierce Sherwood, Ph. D., M. D., professor of bacteriology, University of Kansas, and Pathologist to the Lawrence Memorial Hospital, Lawrence, Kansas. Price $6.00. C. V. Mosby Co., St. Louis, Mo.

Infant Nutrition. By Williams McKim Marriott, B.S., M.D., professor of pediatrics, Washington University School of Medicine; physician-in-chief, St. Louis Children's Hospital, St. Louis. Second edition. C. V. Mosby Co., St. Louis, Mo. Price $4.50.

The Parathyroids in Health and in Disease. By David H. Shelling, B.Sc., M. D., The Johns Hopkins University and Hospital, Baltimore. Price $5.00 C. V. Mosby Co., St. Louis. Mo.

Modern Treatment in General Practice. Volume II. Edited by Cecil P. G. Wakeley, D. Sc., Fellow of

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Laryngoscope 1935 XLV, 149-154
N. Y. State Jour. Med. 1935, 35—No. 11,590★

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King's College, London; Editor of "The Medical Press and Circular". William Wood & Co., Baltimore.

Obstetrical Practice. By Alfred C. Beck, M.D., professor of obstetrics and gynecology, Long Island College of Medicine; obstetrician and gynecologist-in-chief, Long Island College Hospital, Brooklyn. Price $7.00. The Williams & Wilkins Co., Baltimore.

The Patient and the Weather. By William F. Petersen, M.D., Volume I. Edwards Brothers, Inc., Ann Arbor, Michigan.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

Individual Exercises. By George T. Stafford, M. S., director corrective physical education, University of Illinois; Harry B. DeCook, M. A., director corrective physical education, Northwestern University; Joseph L. Picard, M. S., director corrective physical education, University of Arizona. Price $1.00. A. S. Barnes & Co., New York, N. Y.

Muscular re-education judiciously applied is a profound therapeutic agent, and has perhaps been neglected by physicians generally. It is reasonable to state that exercise should be prescribed for individual cases, with a definite dosage as to speed, strength, endurance and effort. Obviously, that which would be most beneficial to one patient would be entirely unsuitable for another.

The authors of this treatise on "Individual Exercises" have attempted to describe forms and methods of administering corrective movements. The major portion of the book is taken up with a brief description of the exercises, with diagrams. The nomenclature of the movements is odd, and does not clearly convey an idea of the actual exercise. However, the diagrams illustrate fairly well the technic of the administration of the exercise.

The book is suggestive of a great number of specific muscular movements, and positions to be assumed during exercise. It would seem desirable that more space were given to recreative exercises and occupational activities that would be of greater interest to the patient and at the same time produce desirable physiological results. J. C. E.

The Anatomy of The Nervous System. (fifth edition) By Stephen Walter Ranson, M. D., Ph. D., professor of neurology and director of the Neurological Institute, Northwestern University, Medical School, Chicago. Cloth $6.50, net. W. B. Saunders Co., Philadelphia.

The fifth edition of this widely used standard textbook, which treats the subject from the standpoint of development and function, has been revised in the light of recent experimental work and further enriched by the addition of a considerable number of new illustrations.

The section on the visual pathways has been modified on the basis of the results obtained by Ranson and his associates in their experimental investigation of this system.

The incorporation of twelve illustrations of frontal sections through the cerebrum, reproduced from Jelgersma's Atlas, together with twenty-five diagammatic drawings showing the arrangement of the nuclei of the brain stem greatly enhance the value of the book both for the beginning student and the practitioner. In the present edition approximately one hundred pages (about one-fifth of the book) are devoted to illustrated description of sections of the brain.

Notwithstanding these extremely desirable additions, the size of the book has not unduly increased. As it now stands the work represents the happy combination of an excellent text and an adequate atlas. F. D. G.

That Heart of Yours. By S. Calvin Smith, M. D., Sc. D. Illustrated. J. B. Lippincott Company, Philadelphia.

This volume was written primarily for the cardiac patient, the purpose as stated by the author being, "to supplement and amplify the information which physicians give to a heart patient when time permits and when the patient is in a receptive mood." The introductory remarks are followed by a chapter describing in a very simple and clear-cut manner the basic principles of the anatomy and physiology of the heart and circulation. The remainder of the book deals with descriptions of the more common types of heart disease, rheumatic, syphilitic, arteriosclerotic and hypertensive and explains very fully the underlying essentials of therapy in the several conditions. Drug therapy and other details which depend exclusively on the nature of the individual case are left entirely to the attending physician, the reader being repeatedly admonished to shift all such responsibility to the doctor in charge. The tone of the entire book is predominantly optimistic and every effort is made to encourage and cheer the person suffering from any type or grade of heart disease. It is full of good common sense, but two chapters in particular are worthy of special mention. One deals with "the heart of middle life" and the other contains "general suggestions for heart care". The discussion of diet in the latter is unusually well done.

There are certain criticisms which occur to the reviewer, particularly in regard to occasional dogmatic and rather sweeping statements which some would probably excuse on the grounds that the book was written for the layman and not intended as a medical reference work. The author, in describing the taking of an electrocardiogram concludes the paragraph with, "Thus the heart delineates its own story of normality or impairment in terms *incontrovertible.*" This ascribes to the electrocardiogram powers of diagnosis of which it is quite incapable. There is

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

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FOR SALE—Eye, ear, nose and throat practice, together with books, instruments and equipment, located in Wisconsin in a town of approximately 14,000. Hospital facilities available. Eye, ear, nose and throat office for the last twenty years. Terms, down payment necessary, with suitable terms thereafter. Address No. 5, in care of the Journal. JFM

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already too much reliance placed on this type of laboratory procedure not only by the laity but also by many of our own group who do not have a proper conception of the laboratory's limitations. In describing arrhythmias the author makes this surprising statement: "Sinus arrhythmia is regarded as an indication of health, for it does not occur in deranged hearts." Discussing the use of alcohol which the pharmacologists for years have insisted acts only as a depressant, the author recommends this drug for all cardiac patients at some time during the course of their illness and writes: "All through life circulatory emergencies arise in which the readily available *stimulant*, alcohol, cannot be surpassed for prompt restoration and invigoration." Exception might well be taken to the author's recommendation of the inhalation of chloroform in angina pectoris and the use of this anesthetic during labor in women who have heart defects.

In the opinion of the reviewer, the main objection to the book lies in the fact that it was designed and intended for "those who have—or think they have—heart trouble." Putting such a book indiscriminately in the hands of all cardiac patients is akin to prescribing digitalis for all patients with any sort of heart disorder. Because of the general nature and rather broad scope of the work, it discusses many conditions and phases not applicable to the individual case, and on general principles, this is undesirable from the standpoint of the psychology of the patient. It is a fact well known to all physicians that there is a not inconsiderable group of heart patients who are difficult to keep in line simply because they take their condition too lightly. Such a book would be of no help in this group. Its chief value will be to the practitioner who has occasion to advise and treat heart patients, for it presents in very usable form the type of information which one gives to those suffering from heart ailments and answers in a clear straight-forward manner numerous questions commonly put to the doctor by these people. At the discretion of the physician it could possibly be placed in the hands of a certain type of heart patient who might benefit from its encouraging and optimistic note, but in general the information which it contains should be thoughtfully and discriminately imparted by the doctor in charge who is familiar with the case. C. M. K.

Around a World on Fire. By Dr. Karl E. Kassowitz. Guttenberg Publishing Co., Milwaukee—Price $2.00.

It is difficult for 'landlubbers' to inject themselves into situations such as are recounted by Dr. Kassowitz in this volume. The vicissitudes he describes; the experiences that thrill one in the reading; the adroitness with which dangerous situations are met; and above all, the 'nerve' exhibited in having conceived and successfully executed escape from a Siberian army camp,—all these are a chapter in the life of the physician—raconteur that put the author on a par with the exploits of the heroes of many contemporary composers of fiction.

But this is not fiction. It is the story of an Austrian physician-war combatant who was taken prisoner by the Russians; who served for a time as physician in the prison camp; was then sent to Siberia, from which forbidding land he escaped disguised as a Chinese coulie into Manchukuo; then came via China to the United States; to Gibraltar (where there was another brief incarceration), and final delivery into the Austrian lines. Even recounting this 'round the world flight' is almost breathtaking.

While this is essentially a tale of adventure, it is punctuated here and there with observations that show the keen eye of the surgeon—and this will interest physician-readers; but it also describes the horrors of war in all its aspects, leaving not a vestige of glamour to the sordidness of the whole unhallowed business, and it depicts also the benighted civilization found in the frozen regions.

A number of cleverly executed drawings done by Hans V. Schrotter, embellish the volume. While these are very sketchy, they add materially to the interesting episodes that are spun, chapter by chapter, to thrill the reader. There is an element of humor in some, and this breaks the tenseness caused by the vivid tale of hair-raising exploits.

Dr. Kassowitz dedicates this volume of memories to his children; the pages are to instill in them "a holy fear and awe of the years just passed", and they express the belief that "the world that lies ahead will be a brighter world than that over which the dark shadows of the past have fallen". The reviewer would like to share this optimism, but present indications seem to dispel any immediate hope for "the dawning of a new day". God speed it!

Dr. Kassowitz's volume is a tale of absorbing interest, and should find its way on the shelves of all who are seeking a respite from tales of fiction, however thrillingly depicted, in favor of a tale of unique and fascinating personal experiences, which have all the elements of war adventure but which seem to point, in the vivid character sketches of soldiers of various colours, to the utter hopelessness of the task which confronts nations,—the aim for a higher moral tone, and a subordination of cupidity to a sense of justice and tolerance. A.J.P.

OSTEITIS

(Continued from page 41)

the fibula, below the neck. These last observations suggest malignancy. Further, in the lower third of the femur, there is an area of destruction about 1 cm. in diameter, which, if associated with the area in the tibia, is not consistent with a benign lesion. Following further the assumption that the lesion may be benign, there are two tenable probabilities,—giant cell tumor and benign bone cyst. The location below the epiphysis eliminates the probability of giant cell tumor which is a lesion originating in the epiphysis, this type never occurring in the met-

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aphysis. The probability of a benign bone cyst is reduced because of the asymmetry of location within the cortical limits, and the lesion is probably closer to the epiphyseal region than is usual for a benign bone cyst. Moreover, solitary bone cysts occur more commonly in the first age period than in the third.

Request was made of the transient bureau medical service to commit the patient to a hospital for further investigation. This study was completed the week of June 19. The entire skeleton was examined. X-ray films show characteristic diffuse granular osteoporosis of the calvarium, additional cystic areas in the fifth metatarsal of the right foot and the outer end of the right eleventh rib, conspicuous accentuation of the trabeculation of the pelvic girdle and femora, and several small cystic areas in the upper third of the right femur. There is also conspicuous subperiosteal cortical erosion of other bones, notably those of the hands. Associated findings are calcific areas in the region of both kidneys, probably renal calculi, and grade II spondylolisthesis which may or may not be secondary to the general skeletal changes. Considering the bone findings, it was decided that the blood serum should be examined for calcium and phosphorus content. Blood calcium was reported to be 16.6 mg., and blood phosphorus 2.8 mg. per 100 cc., the former being high as compared to the normal of 10 to 12, the latter reduced as compared to the normal of 3 to 5. The diagnosis is hyperparathyroidism with the usual cystic skeletal changes.

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COMMENT

I report this case to show the advisability of extending the scope of the investigation beyond the limits of the local indications and to show the need for a close relationship between the roentgenologist, the internist, the pathologist and the surgeon in the study of a few cases that might appear to be obscure in the usual general practice. The influence of parathyroids on calcium metabolism is not a new discovery, and a study of their relationship to this phenomenon commands the interest of all the specialties in medicine, more lately having attracted the attention of the urologist.

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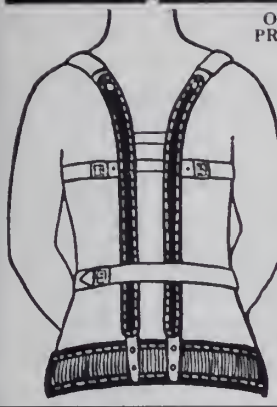

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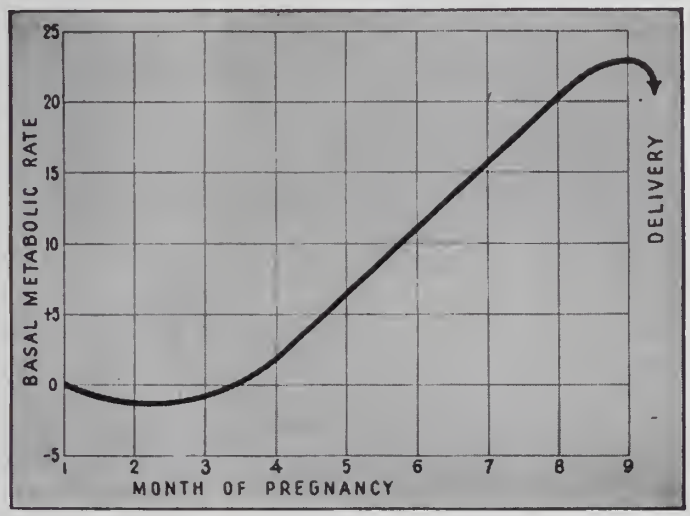

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CANNED FOODS AND THE PUBLIC HEALTH

I. The "Ptomaines"

• Many requests received for further information on canned foods have inquired as to some of the public health aspects of this class of foods. We appreciate the frank interest of our readers in this subject about which so much misinformation exists. We are glad, therefore, to devote this discussion, as well as subsequent ones, to the most popular of the lay misconceptions concerning the wholesomeness of commercially canned foods.

Some laymen hold the belief that canned foods, in some mysterious manner, develop "deadly ptomaines" within the can and hence the consumer of such foods stands in danger of "ptomaine poisoning". In the light of modern knowledge, this belief is ludicrous; it probably had its origin in the old "ptomaine theory" of food poisoning, now so thoroughly discredited by modern medical authorities (1).

Between the years 1870 and 1880, a large number of substances were obtained from protein material which had undergone bacterial putrefaction. These substances were aptly called "ptomaines", from the Greek "ptoma" or "dead body". Toxicologists of the day ascribed marked toxic properties to the new found ptomaines, chiefly by injection studies rather than by feeding tests.

The science of bacteriology was then in its infancy—the true causes of food infection or intoxications were not known. Consequently, the discovery of ptomaines, with their alleged toxic properties, permitted the convenient diagnosis of "ptomaine poisoning" for all illnesses following the ingestion of foods. Today, we know that such illnesses usually result from the ingestion of food which had been infected by certain bacterial groups, and not from protein degeneration products such as ptomaines (2, 3).

One authority has stated that "ptomaine poisoning is a good term to forget" (4).

To this we might add that it would also be well to discard the old, unfounded belief that foods in the tin can develop substances hazardous to health.

Canned foods are merely selected foods which, after proper preparation, are sealed in hermetic tin containers and given a heat process calculated to destroy pathogenic and spoilage organisms which might be present on the raw foodstuff. The hermetic seal prevents future infection of the food by such organisms and insures its preservation and wholesomeness.

Such are the simple facts. The cooperation of the medical profession is earnestly solicited in combating the ludicrous, yet widespread, lay prejudice against commercially canned foods.

AMERICAN CAN COMPANY

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(1) Journal American Medical Ass'n, 90,459 and 1573 (1928).
(2) Food-Borne Infections and Intoxications, F. W. Tanner, Twin City Pub. Co., Champaign, Ill., 1933.
(3) Food Poisoning and Food-Borne Infections, E. O. Jordan, University of Chicago Press, 2nd Ed., 1930.
(4) Preventive Medicine and Hygiene, M. J. Rosenau, Appleton-Century, New York, 5th Ed. 1927, p. 668.

This is the ninth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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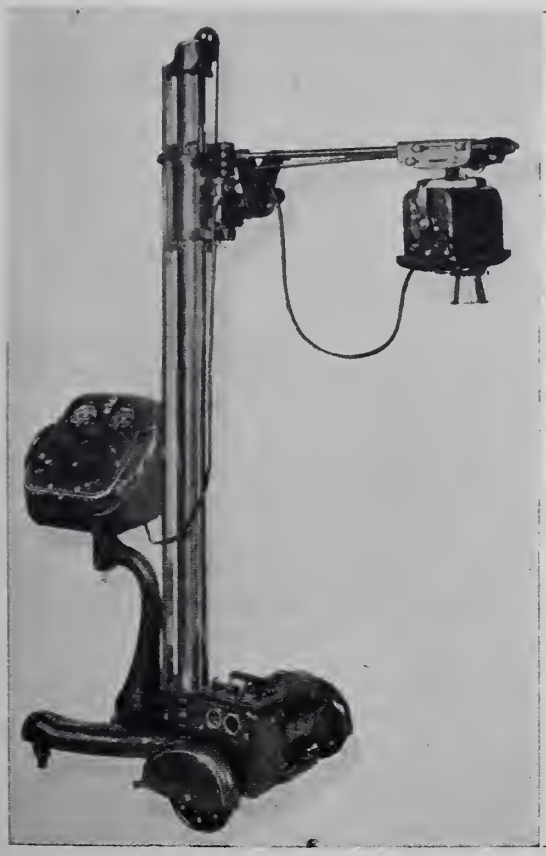

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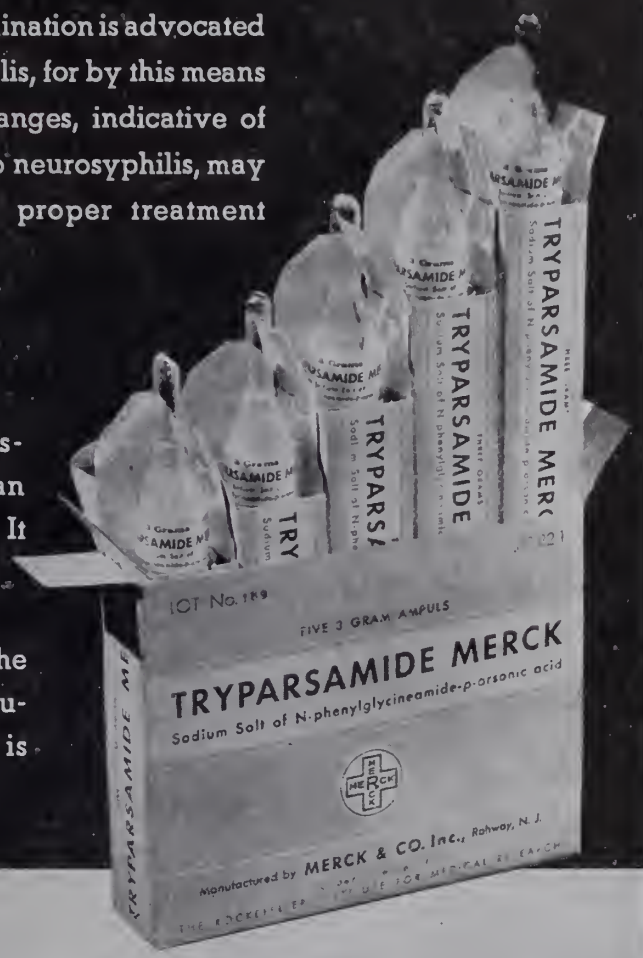

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THE WISCONSIN MEDICAL JOURNAL

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Metastatic Infections of the Genito-Urinary Tract*

By G. H. EWELL, M. D.
The Jackson Clinic, Madison

WE ARE all well aware of the fact that pathological lesions in the genito-urinary tract as the result of infection are extremely numerous and common. There occur, however, instances of pathological processes due to infection which are much less common than others. It would, therefore, be impossible in such a paper as this to discuss even briefly all of the various types of infection, so, at the outset, I wish to make it clear that I propose to discuss a small group of cases due to metastatic infection and to further limit the discussion to those cases in which suppuration takes place requiring surgical intervention in the treatment.

It is now generally accepted that the vast majority of kidney infections are hematogenous in origin. Due, in a great part, to refinements and developments in urologic diagnosis in recent years, more effort has been directed towards a better understanding of the mode of transmission of the infection to the kidney and its points of localization within the cortex or pelvis, and the relation between infections of perirenal tissues and those of the kidney itself.

Paranephric abscess continues to be one of the most interesting and, at times, rather puzzling conditions with which we have to deal. Perhaps some of the confusion surrounding this condition has been due to a lack of a generally accepted classification. Within the past few years, most cases have been designated as primary or secondary; renal and extrarenal. In this classification, the primary and extrarenal are considered the same and in the vast majority of these cases the infection arises from some peripheral suppurative lesion such as boils and carbuncles from which the organisms enter the circulation to reach the perinephrium and produce infection and suppuration. The secondary or renal group are those cases in which the perinephrium becomes infected secondarily as a complication of renal disease such as pyelonephrosis, calculus, and tuberculosis. The writers using the above classification consider a third group of cases in which pararenal abscess exists as a result of extension upward of an appendiceal or pelvic abscess.

Vermooten, on the basis of his recent studies, suggests that metastatic suppurative lesions of the perinephrium be called perinephritic abscess while an abscess in the perinephrium as a result of extension from within the kidney or from elsewhere be termed perirenal or perinephric.

Adding more to the confusion, sometimes, has been the unsettled question as to just how the infection reaches the perinephrium. It has been shown that infection of the perinephrium may take place by direct extension from a suppurative lesion in the renal cortex, either by the rupture through the capsule of such a lesion or by transmission through the lymphatic and vascular channels.

Some writers assert that all cases of suppuration in the perinephrium are secondary to suppurative lesions in the cortex, and in their operative cases exploration of the kidney always reveals such a lesion. Others hold that metastatic infectious processes with suppuration may arise in the perinephrium independent of renal involvement, such cases being analogous to those of acute hematogenous osteomyelitis such as is commonly seen in children. In support of such an assumption, we know that anatomically the perinephrium has a vascular and lymphatic system independent of the kidney and that in most cases

* Presented before 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, September, 1935.

of the typical metastatic type of abscess simple incision and drainage usually effects a cure.

Personally, I must accept the evidence of both groups of investigators, and, from a practical standpoint, conclude that when undertaking surgical procedures for such lesions, where possible the kidney should be explored in all cases of paranephric suppuration unless such exploration entails unnecessary trauma and that in those cases where paranephric abscess has been drained without exploration of the kidney and the postoperative course is not satisfactory, a cortical lesion of the kidney of such size as to continue a febrile course should be borne in mind.

One of the most interesting problems associated with paranephric abscess is that of diagnosis. In some of the cases the history and findings are so clear cut that diagnosis can be made easily; in others only after prolonged study and observation is the diagnosis made. A discussion of the various symptoms, signs and means of diagnosis of this condition would constitute a paper in itself and I simply wish to state here that while we find in most of our articles the suggestion of the importance of a careful history and physical examination, it has been my observation that in the obscure types of this condition these two points are most often overlooked and often the fact is overlooked that an abscess may exist in or around the kidney without any evidence or findings in the urine to suggest its presence.

CASE REPORTS

The following case reports, I hope, will serve to bring out certain points on which we may comment later. Please remember that these reports must of necessity be brief and time does not permit of much discussion of controversial points.

I. A man, age 26, was admitted complaining of pain of one week's duration in the right side of the abdomen and in the right loin. The onset had been sudden and simultaneous in both areas but not unusually severe. However, the pain had become progressively worse. About one month previously he had had a carbuncle excised and since that time had had several furuncles on the back of his neck. The temperature on admission was 99.4, the pulse 88. Except for one rise in temperature to 100.4 the day after operation, it was never above 100 during his stay in the hospital.

Physical examination revealed marked tenderness and some rigidity in the right lower quadrant and in the right abdomen and tenderness over the right kidney region. The urine, on admission, contained an occasional pus cell and occasional granular cast. Four urine specimens examined prior to operation contained only occasional pus cells. Leucocytes, 19,800. After further examination and study a clinical diagnosis was made of paranephric abscess or possibly retrocecal appendicitis.

Under anesthesia an infiltrated area about the kidney could easily be felt and exploration revealed the perinephric tissues to be of bacon-like consistency and free pus was encountered at the lower pole of the kidney which on culture showed staphylococcus albus. Postoperative recovery was uneventful, although the patient continued to have furuncles which rapidly cleared up following two or three injections of neoarsphenamine.

II. A man, age 24, was admitted complaining of pain in the right side and right loin. The onset had been sudden and violent one week previously, the acute pain gradually subsiding; at present it is dull, aching in character. For years, off and on, he had had pain in the right lower quadrant. In the evening following the onset of pain, there was a temperature of 101, and some frequency of urination. There had been no nausea or vomiting; about two weeks prior to the onset of the pain he had had a boil on his face. The temperature, on admission, was 98.4, pulse 80.

There was marked tenderness over the right kidney area and in the right side of the abdomen and over McBurney's point. There was some suggestion of infiltration of the tissues of the kidney area. The most tender point was just inside the region of the anterior superior spine. The urine, on admission, was normal, the leucocytes 10,200.

A tentative diagnosis of paranephric abscess was made and the question of retrocecal appendicitis was again considered. Of four urine specimens examined prior to operation, one was reported as containing a slight trace of albumin and a few pus cells; the others were reported negative. After several days of observation, and excretory urograms, which suggested a lesion in the cortex of the upper pole of the kidney, exploration revealed the kidney to be surrounded by bacon-like tissue. A very small amount of thin pus was found which, on culture, contained staphylococci.

It was interesting to note that in both of these cases the patients complained of as much pain in the right lower quadrant of the abdomen as they did in the region of the kidney, and in the latter case, tenderness was more definitely marked, together with slight rigidity, in the right lower quadrant.

In both instances it was impossible to explore the kidney without undue trauma. Postoperative recovery was uneventful.

III. A man, age 33, came complaining of dull pain in the lumbar back, onset two and one-half weeks ago as a dull pain in this area. By the next night it had spread to the left side of the abdomen and across the lower and mid abdomen. He described the abdominal pain as a "steady stomach ache". The pain has continued in these areas ever since. It hurts him to walk and straighten up and he has felt tenderness in the left side of abdomen and back. Eating or drinking always aggravates the pain. There has been some frequency with nocturia two or three times, no dysuria, and temperature since onset from 100 to 102°. During the first week, definite chilly sensations in the evening. There was a history of a crop of boils several weeks prior to the onset of the present trouble.

Examination disclosed swelling and marked tenderness in the left lumbar region and left loin. The abdomen was soft with some tenderness. The urine contained a few pus cells; leucocytes 12,300. Temperature ranged from 100 to 102 for three days prior to operation. Diagnosis was left paranephric abscess. Following incision and drainage, the temperature rapidly subsided to normal. Recovery was uneventful.

IV. A man, age 68, had been treated for thirty-five or more years for strictures of the urethra, on account of difficulty, dysuria, and nocturia. He had been admitted to a hospital on account of difficulty and dysuria about one month prior to the writer's seeing him and had been on intermittent urethral catheter drainage. The temperature had varied from normal to 100 or less, and on one or two occasions had been as high as 102.

On the day the writer first saw him, the patient presented the so-called picture of low grade uremia. There was a very marked mental disturbance and his general course had been, according to the attendants, progressively downward. Even though the history of long continued urinary tract infection was evident, the patient's poor general condition was out of proportion to a leucocyte count of 15,000, normal temperature and pulse, blood urea of 25 mg., and a phenolsulphonphthalein output of 50 per cent for one hour on that day.

On going over the patient carefully, there was found a suggestion of fullness with definite tenderness over the region of the left kidney and while there had been no definite complaint of pain in this region, the nurses noted while the patient was in a semicomatose condition he would oftentimes place his hand in this region as though in discomfort. In order to expedite matters, an exploring needle was passed into this area and free, foul-smelling pus was aspirated. Under gas anesthesia, a large pocket containing approximately one pint of pus was found, which on culture showed a gram negative bacillus of the colon group.

The immediate change in the patient's general condition was remarkable and within a short time cystoscopy was done, which had never been done previously, and demonstrated the cause of obstruction to be of the ball-valve type of median lobe prostatic hypertrophy. Following the removal of this obstruction the patient very rapidly regained his normal health.

This case is extremely interesting in view of the fact that paranephric abscess in association with prostatic hypertrophy and obstruction is exceedingly uncommon and in this case the natural assumption would be that the patient's temperature and symptoms were due to a chronic pyelonephritis. In view of the patient's very poor general condition, exploration of the kidney was not done and whether the abscess developed from a focus within the kidney cannot be stated. However, following incision and drainage there was never any escape of urine.

It has been suggested by various authors and no doubt at times a definite paranephric infection and inflammation will subside spontaneously. This supposition would naturally be open to question. The following case may be an example of such:

V. A man, age 58, came complaining of pain in the left side and left kidney region; nausea and distress in the stomach. He had been well until seven or ten days previously and since that time had noted a dull pain in the left loin with anorexia, distress in the stomach, nausea, and gas. The stomach symptoms have been present all the time and are much worse after eating. The pain in the left side and left loin have been constant and aggravated by deep breathing. He has felt feverish in the latter part of the afternoon and the temperature taken one week ago, about 6 p.m., was found to be 101. There were no other complaints. The history further disclosed there had been five furuncles within the past month on the back of the neck.

On physical examination, the temperature was 99.4, pulse 94; there was a grade i swelling or fulness of the tissues of the costovertebral angle on the left; tenderness on superficial and deep percussion; and the urine showed a very occasional blood cell and a few pus cells. Leucocytes, 18,200. The patient did not enter the hospital but returned the next day at which time excretory urograms showed a distortion of the left kidney pelvis as though from pressure from some extrinsic or cortical lesion. X-ray examination revealed some obscuration of the margin of the psoas muscle on the left. A culture of the urine made on the day previous showed staphylococci and streptococci.

The patient entered the hospital and for seven days the highest recorded temperature was 99.6. The tenderness and rigidity gradually subsided although it still persisted. The patient requested that he be allowed to return home and on the day of discharge, 7 days after the first x-ray examination, the lateral margin of the left psoas could be demonstrated but not so distinctly as on the right. The leucocyte count was 14,450, the urine still contained a few pus and a few blood cells. The patient was confined to bed under the care of his regular physician with continued heat, nourishing diet, etc. His attending physician reported that for a period of ten days he continued to run an afternoon temperature of 99.6 to 99.8 and the pain and tenderness persisted, after which all symptoms gradually subsided and at the time of the last visit to him, there was no complaint.

During the past few years the urologists have repeatedly called the attention of the profession to the importance of chronic infection of the prostate and seminal vesicles as a site of focal infection. They have pointed out that infection in the prostate and seminal vesicles may exist without the patient having previously had specific urethritis. It is gratifying to note that most of the general men are now quite familiar with this condition. Yet, on the other hand, the profession generally has not accepted the fact that a metastatic suppurative lesion or prostatic abscess may develop from some distant focus of infection. Most of the general men still look upon prostatic abscess as being secondary to gonorrheal infections.

VI. A man, age 39, was seen complaining of frequency of urination, every hour day and night, urgency, and dysuria. His trouble first began three weeks previously at which time he noted a terminal hematuria on two occasions. There was no burning nor dysuria. He has never seen hematuria since. About one week following the hematuria he noted suprapubic pain and discomfort. About one week later he noted nocturia two times and several days after this noted the onset of frequency and dysuria. There had been no chills but several night sweats. There was a history of questionable urethritis while in the army several years previously. After considerable questioning, the history disclosed that about one and one-half months previously the patient had had a carbuncle on his left arm and was still discharging pus at the time of the onset of urinary symptoms but at present is entirely healed. His temperature was found to be 100, pulse 85. The prostate and seminal vesicles were enormously enlarged, hard and acutely tender. No definite areas of fluctuation could be made out. The urine contained a few red blood cells and a few pus cells. A catheter passed easily and there were only a few cubic centimeters of residual urine. This patient had been confined to a hospital for two weeks and had had two cystoscopic examinations but to his knowledge, he could not recall his physician having made a digital examination of the rectum. The cystoscopic examinations had been made four days apart, the last one day previous to his consulting me. The diagnosis was prostatic abscess and a perineal prostotomy was done following which convalescence was uneventful. Cultures of the pus showed staphylococcus albus and colon bacilli.

While there was a previous history, in this case, of some type of urethral infection and, as we know, there was infection in the entire genito-urinary tract, I cannot believe that this was a lighting up of a previous dormant infection but was due to metastatic infection.

Urologists are familiar with acute infections of Cowper's glands occurring practically always as a complication of specific urethritis although it is not one of the common complications, and in those cases there is usually some urethral obstruction such as a small meatus or urethral stricture. The following case again illustrates that while the patient no doubt had infection in the entire genito-urinary tract, the history and findings suggest that the present lesion was early and distinctly confined to Cowper's glands.

VII. A man, age 42, who for about four weeks had complained of pain in the perineum, frequency, burning and difficulty. There was no previous history of bladder symptoms nor urethritis. Following a severe attack of influenza which lasted about two weeks, he noted discomfort and tenderness in the bladder region. The urine burned and the stream became gradually smaller and harder to pass until, after a period of several days, there was retention. His attending physician passed sounds and had an indwelling catheter in place for two or three days on three different occasions. The patient could void but with considerable burning. During the past few days he had noted some swelling on the perineum and to the left. Temperature 99.2; pulse 84; the urine contained occasional blood cells and many pus cells. The day following, however, a catheterized specimen was reported containing only a few pus cells. The prostate was found to be normal in size but tender. However, it was possible to massage it with no more than the usual discomfort. Cowper's gland was found to be about the size of an English walnut with infiltration and edema of the tissues of the perineum on the left side.

Under gas anesthesia, incisions were made and free pus encountered on both sides of the midline.

Convalescence was uneventful and within a few days the urine was entirely free of pus. Culture showed a staphylococcus and colon bacilli.

The question might be raised as to whether the abscess may not have been secondary to the urethral manipulations. No urethral stricture was found, the history of gradually increasing obstruction to urination and the absence of any pathology of moment in the prostate all point to a definite and early lesion in Cowper's gland.

With acute epididymitis as a complication of specific urethritis, we are all familiar and frequently see cases of acute epididymitis associated with upper urinary tract infection, particularly where there has been instrumentation. Epididymitis following one of the general infectious diseases without a history of previous trouble is, to my mind, quite unusual and interesting.

VIII. A man, age 46, came in complaining of pain in the left lower abdomen and swelling of the left testicle. The onset had been about five weeks previously with pain in the left groin. The next morning he noted swelling and pain in the left testicle. In about three weeks, after having been confined to bed for some time with applications of heat, the pain and swelling subsided some but the swelling not entirely. During the past few days and especially since having been rather active the swelling has become much more marked, although there has been practically an absence of pain and soreness for many days. For a few days following the onset, he noticed a slight dysuria.

Physical examination revealed the left epididymis enlarged grade iv, non-painful, and in one area there was definite fluctuation. The prostate was normal and the fluid negative. The leucocyte count was 8,800. The urine was negative. Further questioning disclosed that about two and one-half months prior to the onset of the trouble he had had a carbuncle on the back of the neck, and about two weeks prior to the onset of the difficulty there had been an attack of influenza. A left epididymotomy was done and the entire epididymis was found to be necrotic. Culture of the pus showed staphylococcus albus. Postoperative recovery was uneventful.

COMMENT

Metastatic infections of the genito-urinary tract form an extremely interesting group of cases. Diagnosis of such cases is sometimes difficult, and, as in all obscure cases in medicine, a careful history is one of the greatest aids in diagnosis.

REFERENCE

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Edema of Obscure Origin With Remarks on General Treatment*

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WITHIN the past few years edema has been intensively investigated with the result that the mechanism is beginning to be better understood and, in consequence, treatment has correspondingly improved.

In 1895 Starling proposed an explanation for edema. He stated that edema depended upon the equilibrium of forces acting within and without the capillary walls. The hydrostatic pressure within the capillaries tended to force water and salts into the tissue spaces and the osmotic pressure of the proteins of the plasma, the colloid osmotic pressure, tended to draw water and salts into the capillaries. At the arterial side of the capillary loop fluid passed into the tissue spaces due to the fact that the hydrostatic pressure was greater than the colloid osmotic pressure, while at the venule end the reverse was the case, and fluid passed back into the blood. The balance of these two forces was the normal state, a disturbance might result in edema. The osmotic pressure of the colloids within the blood stream has been termed the oncotic pressure. Govaerts has determined that the oncotic pressure of the plasma proteins is 35 to 40 cm. water.

The plasma proteins are composed for the most part of serum albumin and serum globulin. The total protein content is from 6.2 to 8 grams per 100 c.c. of blood of which 3.6

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to 5 gms. are serum albumin and 2 to 3.5 gms. are serum globulin. The oncotic pressure of the albumin fraction is three to four times as great as that of the globulin fraction. Further the globulin molecule is much larger than the albumin molecule and rarely passes through the capillary wall.

Peters and Van Slyke, and others have shown that there is a critical level in the reduction of plasma albumin below which edema invariably occurs in experimental animals. This level is about 2.5 grams per 100 c. c. blood. In other words, it has been demonstrated that when the oncotic pressure is reduced by reducing the protein fraction most responsible for its effect, fluid transudes into the tissues and is not reabsorbed at the venule end. Simple edema results. The edema fluid is a filtrate of the blood plasma but always contains a small amount of albumin. This results where no capillary damage is produced.

It was by applying Starling's theory that Epstein discovered the reversed albumin: globulin ratio in nephrosis and recommended the high protein diet. Unfortunately the matter is not so simple although Starling's theory has had a most stimulating effect upon investigators. Electrolyte balance, capillary permeability and water balance (about which we know little) are some disturbing factors.

Weech has listed the factors concerned in the regulation of fluid distribution in the body.

A. Factors operating at the wall of the capillary:

1. Colloid osmotic pressure of the plasma.
2. Capillary blood pressure.
3. Colloid osmotic pressure of tissue fluid.
4. Mechanical pressure in the tissue spaces.
5. Permeability of capillary wall.

B. Factors which modify the forces on the outside of the wall of the capillary:

1. Lymph flow.
2. Elasticity of the tissues.

C. Factors which modify the forces on the inside of the capillary:

1. Excessive proteinuria, e. g., nephrosis.
2. Protein starvation.
3. Venous obstruction and cardiac stasis.
4. Variations in sodium chloride intake.
5. The kidney.

For purposes of this discussion we shall lump the causes into hypoproteinemia and variations in salt and water intake.

There is abundant proof that feeding animals on a low protein diet will produce edema. (Shelbourne, and Weech and his associates). There are several curious discrepancies in the theory that loss of protein and lack of food protein produce edema. Weech has shown that loss of tissue protein and loss of plasma protein do not go hand in hand. Although deficient protein in the diet will usually reduce the plasma albumin to the critical level, yet edema may occur with normal or only very slightly reduced values for plasma albumin. Further, actual starvation does not produce edema or change in plasma proteins and malnutrition does not always produce it.

It is not definitely known where the albumin is made. Fibrin is formed in the liver. It is supposed that the plasma albumin and globulin are also formed there. Weech says "It seems a possibility of exchange of substance between tissue protein and plasma protein, and under appropriate stress either protein may act as a restorative to the other". In states of depletion of plasma protein the loss may be made up from tissue protein.

Capillary permeability and intake of salt play roles which are not altogether clear at times. The former can not be controlled, the latter can be.

These theoretical considerations, very briefly outlined, serve to make a little clearer what is to follow.

NUTRITIONAL EDEMA

Cases of nutritional edema in humans have long been known in the history of the world's wars and famines. The subject was studied by modern methods in Germany during the late war where the population was suffering from a lack of protein and fat in the diet.

Conceivably protein may be reduced in the human body in several ways:

1. There may be insufficient intake of protein.
2. There may be excessive loss of protein.
3. There may be deficient absorption of protein.
4. There may be deficient formation of protein.

Obviously there may be combinations of any two or more of these factors.

The sodium ion has long been known to influence the amount of water retained in the body. In an edematous patient water alone does not cause increase in edema. On the contrary it more frequently acts as a diuretic (provided kidney function is not impaired). But if sodium chloride is given at the same time the edema increases. This is not true of salts of potassium, magnesium or ammonium. Herrmann and his associates have shown that by alternating a mercurial diuretic such as salyrgan which decreases tubular reabsorption with a theophylline salt which increases glomerular filtration, diuresis is increased from 100 per cent to as much as 400 per cent. Their work was done on patients with cardiac edema but the principle applies as well to other types of edema.

Interesting and important observations concerning edema in patients have been contributed by internists and surgeons. Sweeney reported that certain women at the menstrual periods showed a sudden gain of several pounds. Often there was a feeling of tightness of hands and feet and even pitting ankle edema. He offered no explanation but suggested possibly some endocrine effect on water balance, sodium chloride or both.

Thomas reported two cases of generalized edema occurring only at the menstrual period. In one case the edema was marked while menstruation was present. There was copious post-menstrual diuresis and loss of weight and edema. The other case followed after great loss of blood the result of suicidal severing of both radial arteries. A peculiar shadow was found in the sella turcica. Spectacular relief followed injection of anterior pituitary-like sex hormone from urine of pregnant women (Follutein).

Grabfield reports a case of a 32-year-old woman, previously well, who contracted a cold followed by an ear infection. Edema first appeared in the face, later involving the ankles, lower legs and hydrothorax. There was neither heart nor kidney disease. There was a high total serum protein content with a reversal of the albumin-globulin ratio.

One can again emphasize the fact that it is the diminution of albumin not globulin which is important. Occasional cases are found where total protein was of normal amount, i. e., 8 gms. per 100 c.c. of blood but the globulin was 5.5 to 6 gms. Obviously then the value for total protein does not reveal all the facts yet, due to the infrequence of such high globulin value, many clinicians determine only the total proteins. The globulin varies very little so that a total protein of 5.0 to 5.5 gms. usually means marked decrease in albumin.

In 1932 Youmans reported from Tennessee cases of edema among his clinic patients. They were most often seen first in the late winter and spring and increased in number up to early summer. He found that the protein intake was often far below the nutritional requirements, as low as 20 gms. daily. He considered them to be cases of chronic dietary deficiency.

In 1933 he reported laboratory studies. He did not find low values for serum albumin and in none of his cases were the calculated values for oncotic pressure (according to Govaerts) below 30 cm. of water. He could not determine the true cause of the edema.

Interesting and important observations backed by experimental evidence have been recently reported by Jones and his associates. Their first article contained reports of 34 patients some of whom developed edema, amounting at times almost to anasarca, following ordinary surgical procedures. A diminution of serum protein was found in nearly all cases. Actual undernutrition was of first importance. Other factors were of equal or less importance, for example, if considerable fluid was not given, edema did not occur in spite of low serum protein. The amount of sodium chloride intake was also of importance. Again excessive drainage with consequent loss of pro-

teins or sepsis with increased permeability of capillaries or both were causative factors.

Jones, Eaton and White then produced edema experimentally varying the conditions so that they would be as nearly like those found in patients as possible. They say, "Of all the factors, nitrogen starvation and sepsis seem the most important, but only when combined with the administration of sufficient fluid and salt * * *

"The production of edema appears to depend on certain factors which we have been able to vary independently. These factors, in the order of importance, seem to be nitrogen starvation, general malnutrition, sepsis, the administration of somewhat excessive amounts of water and sodium chloride, serous drainage, major surgical procedures and general anaesthesia. Disturbances of renal and hepatic function play important roles, but are secondary to the other factors." Postoperative edema is more apt to occur in cases of gastro-intestinal diseases, and leakage from anastomosis was found to be due to edema of the gastro-intestinal mucosa. They emphasize the practical value of careful preoperative preparation of patients. This applies particularly to gastro-intestinal cases where stringent insufficient protein diet has been prescribed or voluntary partial starvation has been practised for some time before the patient comes to operation.

OBSCURE TYPES—CASE REPORTS

The following three cases are illustrative of some of the obscure types of edema:

Case 1. Mrs. A. C., was first seen May 15, 1929, when she was 49 years old. She complained at that time of shortness of breath on exertion with swelling of the feet and lower legs, with some cough at night so bad sometimes that she vomited. There was pain in the left side and bloating and the urine was scanty. She had had six children, the youngest 22. There were no miscarriages. She was still menstruating but had skipped the past month. She had always been exceedingly well. She does not remember that she ever had a doctor for herself. She had had no rheumatism or scarlet fever. She was a hard worker and heavy eater and had grown stout until her weight was 228 pounds. She was not a heavy user of alcohol. For several years she had had swelling of the feet at night which, however, were normal in the morning. She had no shortness of breath. She had a bad cold and cough in December, 1928, and since that time had the symptoms described above. Her appetite is fair and her stomach feels bloated.

On physical examination she was a stocky woman exceedingly stout with a huge pendulous abdominal wall. The skin had a slight yellow color. Mucous membranes were good color, most of the teeth were gone with considerable bridge work. Two left upper molars were decayed. The tongue was clean and red. She had no general glandular enlargement. The pupils were normal. There was no edema of the eyelids. There were dilated veins at the root of the neck. The chest was broad and deep with wide costal angle. The lungs were clear except at the extreme right base where there was flatness and evidently fluid. The heart apex was not felt. It was made out in the 5th interspace 11 cm. from the midsternal line. There were no murmurs but there was reduplication of the 2nd sound at the base. The blood pressure was 142/98. The pulse was regular, 84 to the minute. The abdomen was large and flabby. The liver was felt 10 cm. below the costal margin, it was firm and smooth. No fluid was made out in the abdomen. The lower legs were edematous. The knee jerks were normal.

Fluoroscopic examination showed a transverse heart with slightly increased area, broad base and aorta. The lungs were congested with haziness at the right base and huge hilum shadows.

She was placed in the hospital for observation where fluid was made out in the abdominal cavity. At that time she had a trace of albumin in her urine with a positive test for bile. All the other laboratory tests were negative including the Wassermann.

It was thought at the time that possibly her edema was the result of heart failure, but after observing her for a while it was concluded that the heart was not responsible for the condition. Attempts were made to decrease the edema with diuretics of the xanthine group but in spite of the increased urination caused every time by the diuretic the edema of the feet did not completely disappear, the swelling of the abdomen continued and while the liver decreased somewhat in size it was still enlarged. Throughout the next year the condition remained about the same with the abdomen becoming a little more tense and edema of the lower abdominal wall. The heart seemed to be fairly normal.

On April 4, 1930, she was given the first intravenous injection of salyrgan. Diuresis was satisfactory but the abdominal distention did not disappear. I did not see her again until June 2, 1934, when she complained of pain in the lower left quadrant of the abdomen. On June 1st the abdomen was tapped and 3½ gallons of straw-colored fluid was obtained. She had an abdominal operation in May, 1930, unknown to me, and the record is not available. From June 2, 1934, up to April 26, 1935, she has had intravenous injections of salyrgan a total of 70 injections. These have been alternated with ammonium chloride or ammonium nitrate by mouth.

On February 25, 1935, her weight was 195 pounds. There was marked edema of the legs up to mid-thigh. The liver was palpable 10 cm. below the costal border. The abdomen contained some fluid. She had been continually doing her own housework including her washing, drove her own car, had no shortness of breath and except for the discomfort of the edema she felt very well.

At that time the total protein of the serum was 7.86 gms. per 100 c.c.; albumin, 4.80; globulin, 3.06; cholesterol, 178.5 mg.

In March she developed a severe case of herpes zoster over the right shoulder. Her weight at that time was 185 pounds. She had been eating no salt for about a year. At the present writing her abdomen is soft, there is still some fluid, the edema of the legs is quite extensive almost up to the groins. The liver is still hard and palpable. She continues to do her own work and is on her feet a great deal of the time. There has been no breaking down of the skin of the legs. For some time she has worn elastic stockings.

Comment: This woman, in spite of her marked edema, seems perfectly well. I have thought at times that she may have polyserositis but the course of the condition seems to render that diagnosis doubtful. There is no tumor of the pelvis. There is no cause as far as I can see for the persistent edema. Occasionally her abdomen feels uncomfortably tight and she will come in for an intravenous injection of 2 c. c. salyrgan. She has found that ammonium nitrate in 60 grain doses daily makes her fairly comfortable. The albumin of the serum is normal. I have no diagnosis. It is not cirrhosis of the liver, biliary, portal or luetic. It is not from kidney or heart disease. It is not from abdominal tumor. It is apparently not protein deprivation. It may be endocrine imbalance but there is no evidence of any. I leave it undiagnosed. The edema is kept in check by application of the principles which are discussed above.

Case 2. Miss Van R., an unmarried, white woman, 42 years old, was referred to me by Dr. H. B. Hitz for examination. He had been treating her for a sinus infection and noticed that her feet were swollen. Her family history is of no significance. She remembers that as a girl she had large legs and small body. She had diphtheria three times during childhood. Her menstrual periods began at 13 years. They have always been regular with some pain for a few hours preceding the flow. She has good health as a rule, stands all day on her feet at work. For the past year she has had nocturia once a night and occasionally her lower eyelids would be puffy in the morning. She has not lost or gained weight, has a good appetite, regular bowels. She was quite sure that her ankles swelled more during her menstrual periods. They seemed to be larger since she acquired the sinus infection.

On examination she looked healthy with good color. She was 5 feet 6½ inches tall, and weighed 171 pounds. She had a curious build; relatively small torso with narrow shoulders. It was not lipodystrophy. The facial fat was abundant. Hips, thighs and lower legs were large. The skin over the lower legs was thick, the tissues firm, resembling myxedema. There was no pitting of the ankles. There were scattered pigmented spots on her abdomen which she said had appeared within the past year.

The pupils were normal. There was no goitre. The lungs, heart and abdomen showed no abnormalities. The blood pressure was 120/80 mm—Hg.

Laboratory findings were: normal blood count, normal urine, negative blood Wassermann reaction. The serum proteins were 8.4 gms. per 100 c.c., blood with albumin 4.8 gms. Globulin 3.6 gms. Basal metabolic rate was minus 10 per cent.

She was given small doses of thyroid extract. This raised her pulse rate and seemed to soften the hard edema of the legs. Thyroid was reduced and combined with anterior pituitary extract, 3 grains daily. The legs seem softer but there is not much change. Her physical condition is excellent.

Comment: This case is reminiscent of the one reported by Grabfield and belongs also to the group of menstrual edema reported by Sweeney. At first I thought she might have myxedema but the hands were normal. Her basal metabolic rate was only minus 10 per cent. Even small doses of thyroid extract reacted violently by giving her a definite tachycardia. Still the edema did seem softer. The legs are large but there is also edema. She noticed this following her sinus infection. At present she is feeling well in spite of the edema which does not seem to be increasing.

Case 3. D. L., a young man of 26 years, was first seen August 4, 1934, complaining of sour stomach and indigestion, tight feeling across chest, swelling of legs when he exercises or is on his feet. The family history is unimportant. He was perfectly well up to 7 years ago. He went through high school, did some athletics and seemed a normal youth. He suddenly developed diarrhea. There was no blood in stools, no tenesmus, his bowels moved every 2 or 3 hours. He had fever and night sweats and frequent vomiting. The attack lasted from June to January and he lost 25 pounds. He apparently recovered completely and went back to school. Since this attack his bowels have been most irregular. For a time he is constipated. Then his bowels are loose

and he seems to have little control. Occasionally his bowels are regular but he knows he will soon have trouble again. He has a poor appetite, fills up quickly. Every winter his face feels like "contracting nerves", his hands feel stiff and crippled. These sensations come in "spells" and he takes codein and luminal to work them off. He also has pains in lower back so he can not sleep at night. He has to get up frequently at night to urinate but has no day frequency. Three years ago he was short of breath and very anemic. He improved after taking liver. His teeth have been bothering him. They are decaying rapidly and hurt when he chews. All the molars have been extracted.

About four years ago his ankles began to swell when he was on his feet. He says that he has been swollen from his feet to his chest. There is no breathlessness on exertion. When he goes to bed the swelling decreases somewhat. Gradually the swelling was reduced and two years ago his ankles were normal for two months. Since that time the swelling has been constant, at times reaching mid-thigh and fluctuating some, being worse in late winter or early spring. He is a most finicky eater,—can't eat this or that.

On examination he is a tall, (6 ft. 3 in.) slender man, weighs 152 pounds. His features are coarse, skin of face thick with acne. The arms are long, the hands and fingers long, the feet also long and narrow. His color is pasty. The teeth, six upper and seven lower front, are carious and show pyorrhea alveolaris. The tongue is clean. The pupils are normal, there is no goitre. The lungs and heart are normal. Pulse is 92 to the minute, regular, the blood pressure is 120/80. The abdomen is a little full with dullness in the flanks. The liver and spleen are not felt. There is much gurgling. There is marked soft edema of ankles and lower legs to knees. The reflexes are present.

The urine was negative. The blood count was reds 5,100,000, whites 4,000. Hb. 90 per cent. Differential count was polys 51 per cent, eosinophiles 13 per cent, lymphocytes 31 per cent, mononuclears 5 per cent. The red cells and platelets were normal. Another count one month later showed reds 4,790,000, whites 5,700, Hb. 88 per cent, polys 63 per cent, eosinophiles 2 per cent, lymphocytes 32 per cent, mononuclears 1 per cent, monocytes 4 per cent. The basal metabolic rate was +10.7 per cent. Mantoux test was negative. The stool showed no parasites, no blood. X-ray of chest and gastro-intestinal tract was negative. Inquiry into the diet revealed that he was eating almost no protein. He did not like certain foods and he said he could not take milk. He could not eat much, he filled up so quickly.

The total protein of the plasma August 27, 1934, was 2.4 gms. per 100 c. c. of blood, the albumin .9 gms., the globulin 1.5 gms. (These figures seem doubtful; however the albumin was evidently much decreased). The blood Ca was 9.3 mg., the P 6.6 mg. per 100 c.c.

In September he had his teeth extracted, a portion of upper front jaw was removed. Now he could eat scarcely anything. He was urged to take a high protein, high vitamin diet but said he could not eat the food. He evidently is babied at home.

On November 11, 1934, total plasma protein was 4.1 gms., albumin 2.1 gms., globulin 1.22 gms.

At present he still has edema of the legs which fluctuates. He will not eat an adequate diet, says he can not force food but is actually eating more than he formerly ate and is eating no salt. He is gradually getting better. In spite of his nocturia, the functional activity of the kidneys is normal by all tests.

Comment: This case seems to belong to the group of nutritional edema. Two factors are operative in him, insufficient protein intake and irregular intestinal absorption. I have no explanation for the period of two months when he had no edema. Since then it is evident that his diet has been quite deficient not only in protein but in vitamin content. Various means have been tried to induce him to eat animal protein but his constant complaint is that he fills up so quickly he can't eat food. No help is gotten from his parents. He is a spoiled youth, allowed to have his own way. I feel that if there were full cooperation he might become normal. However, the condition has been present for so long a time that capillary damage may be present and in spite of an adequate diet he might always have some postural ankle edema.

TREATMENT OF EDEMA

From the resume given above certain practical applications logically follow and yet in some cases there seems to be a constitutional defect or an acquired disturbance of metabolism which renders it impossible to reduce the edema.

The simplest form is that due to congestive heart failure. Here the edema is definitely the result of increased venous pressure where the absorption can not take place at the venule end of the capillary loops. As all know, regulation of the circulation by simple bed rest often causes absorption of the edema. In spite of all the evidence now present that adequate protein intake does not increase blood pressure and does not damage the kidneys of chronic nephritis, many doctors put their cardiacs and nephritics on a

diet so low in animal protein that actual protein deprivation results and this factor often causes persistence of edema. W. A. R. Thomson finds that in cardiac edema there is some malnutrition and there is a distinct fall in plasma protein concentration. He thinks that the plasma protein deficiency plays an important part in the causation of cardiac edema. In edematous cardiacs he finds plasma albumin less than 3.2 gms. per cent, in non-edematous cardiacs greater than 3.2 gms. per cent. Hermann's observation on the alternation of mercury and theophylline diuretics have been given. Also attention has been called to the influence of the sodium ion.

Years ago Karell proposed a diet for cardiacs with edema of one liter of milk daily for a few days. Brilliant results often followed this regime. Karell proposed this diet long before much was known about the effects of salt and water upon the production of edema. Milk has only about .6 gms. sodium chloride per liter. It contains 40 gms. protein, 40 gms. fat and 40 gms. milk sugar (approximate figures). Total calories are only 700. This is far below nutritive requirements. A more adequate diet would be 1 liter whole milk, 15 to 20 gms. unsalted butter, 60 to 80 gms. unsalted crackers or bread. This totals 975 to 1340 calories.

To get rid of the edema then the measures are as follows: Bed rest, digitalis or digitalis-like preparations, venesection if necessary, salt-free limited water diet as above, diuretics of mercurial content (salyrgan) if the kidneys are functionally adequate alternating with some theophylline preparation. At times change in electrolyte balance by giving large daily doses (60 grains) of ammonium chloride or ammonium nitrate with salyrgan reduces the edema. If there has been much undernutrition so that anemia results then iron should be given in large doses.

The edema of chronic nephritis should not be treated by a low protein diet. Marked loss of albumin in the urine depletes the albumin of the blood serum and a vicious circle tends to be established unless adequate protein is fed to compensate for the loss. Vegetable protein is not as efficacious as animal protein. Restriction of sodium chloride is important. Water should be limited somewhat. It should be recalled that water without sodium chloride acts as a diuretic. The flatness of the salt-free diet may be mitigated by potassium or ammonium chloride. It is generally believed that the mercury containing diuretics (salyrgan) should not be used in cases of damaged kidney. The use of the theophylline group which increases glomerular filtration appears to be a logical therapeutic procedure. Purging and sweating are no longer practiced.

Treatment of the nutritional edemas consists in an adequate protein ration. This should be not less than 1 gm. of protein per kilo of body weight and should consist in great part of animal protein.

For the edemas of obscure origin when the plasma albumin is not decreased, salt restriction, and diuretics intravenously and by mouth may help to keep down the edema. In some cases no procedure seems to be efficacious. We must know more about the influence of the glands of internal secretion upon the electrolyte pattern, water balance, and capillary permeability before we can hope to treat successfully all the various kinds of edema. However, a real beginning has been accomplished and no doubt within the next few years there will be many additions to our knowledge of the causes of edema.

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DISCUSSION

Dr. E. M. Jordan (Green Bay): Sir Francis Bacon once said "Some books are to be tasted, others to be swallowed, and some few to be chewed and digested." The same thing may be said of medical papers,—some few are to be chewed and digested and such a paper you have just heard (and the effort will be well worth your while).

We are indebted to Dr. Warfield for a clear and concise presentation of the modern conception of the cause of edema. As Dr. Warfield states, there are as yet several disturbing factors in the etiology of edema of which we know little. Capillary permeability, water balance, and electrolyte balance are factors which need further investigation, as well as the effect of disturbances in secretion of the endocrine glands. We know, for example, that nephrosis is due to decreased colloid osmotic pressure (oncotic pressure) in the plasma proteins. We know further that the primary cause of the edema in nephrosis is a lowering of the albumin fraction of the plasma protein below a certain critical level. What we do not know is the possible role played by some gland of internal secretion or some obscure hormone-like substance which may be the causation factor in the deficiency of albumin in the plasma protein.

The treatment of edema is as yet far from perfect because the treatment is that of a symptom rather than a disease. While the treatment is therefore more or less empiric, some rather remarkable advances have been made in the last two decades.

Three distinct varieties of edema,—nephritic, nephrotic and cardiac—occur in Bright's disease. In addition, there are several other types of edema whose etiology is entirely outside the kidney, viz: polyserositis, the edema and ascites of cirrhosis of the liver, and some very obscure types associated with disturbances in metabolism.

It is obvious that rational therapy of each must differ from the other in view of the distinct mechanisms producing these types of edema. There are, however, certain therapeutic principles which are directed toward the edema as such which are more or less applicable to all types of edema. These are:

1. The restriction of edema producing substances in the dietary.
2. The use of diuretics.
3. The mechanical removal of edema fluid.

The regulation of the diet and fluid intake forms the cornerstone of the therapy of dropsy. Without ingestion of water there can be but little or no edema. The restriction of fluid, therefore, is the first principle of the treatment of the dropsical patient. The fluid allowance must depend upon the needs of the individual patient. If the kidney function is good fluids may be restricted to 600–800 cc. in a few cases but most cases require 1000–1200 cc. per day to be at all comfortable.

The ingestion of sodium chloride tends to increase the retention of fluids in the tissues, the sodium ion being in all probability responsible for this action. The results obtained with the treatment of the edematous patient with salt and fluid restriction are sometimes so prompt that no other treatment is required. The restriction of protein depends upon the variety of edema. In the treatment of chronic glomerular nephritis with marked nitrogen retention the protein intake should be restricted. Protein should always be restricted to minimal body requirements in the treatment of cases of severe liver damage as in cirrhosis of the liver with ascites and edema. Bollman has shown that in the dehepatized dog ascites may be produced at will by the feeding of protein. In all other types of edema the protein intake should be adequate for the body needs.

The greatest advance in the treatment of edema has been in the development of the diuretics. Calomel was used as a diuretic by Paracilsus in the 16th century and since the time of Thomas Willis "salt of nitre" (potassium nitrate) has been used in the treatment of dropsy. But it is only in the last two decades that the use of diuretics has reached such a degree of efficiency.

Salts:

Sodium salts are contraindicated because of their hydropigenous properties.

Potassium salts are sometimes effective. Magnus Levy obtained excellent results with potassium chloride in the treatment of nephrosis.

Salts which produce acidosis. In recent years a group of saline diuretics has been found whose diuretic action accompanies an acidosis. The most important members of this group are ammonium chloride, calcium chloride, and more recently ammonium nitrate. Ammonium chloride apparently produces acidosis because the ammonium is converted into urea liberating the chloride ions which abstract the fixed base from its combination with bicarbonate. Gamble and Blackfon believe that the increased acidity of the blood lowers the base binding capacity of protein and thereby effects a water exchange. In 1927 Keith and Jacobs, and in 1928 Keith and Whelan used ammonium nitrate and found it to be as efficient as ammonium chloride with the added advantage that it produced less disturbance of the stomach.

Organic Mercurial Diuretics

Novasurol was first used as an anti-syphilitic but was found to be a powerful diuretic and was first used as such by Sax and Heilig. More recently novasurol has been almost entirely replaced by the less toxic salyrgan. These organic mercurial compounds are the most powerful diuretics available. Salyrgan can be safely used in all cases of edema except in the edema of acute nephritis, acute kidney infection and cases of nephritis with marked nitrogen retention.

Schlosser in 1913 found that the combined use of caffein and sulphate was a more efficient diuretic than either substance alone. Similar results are obtained with the combined or alternate use of ammonium chloride or nitrate and salyrgan. Whether these mercurials act more efficiently in the presence of a higher hydrogen ion concentration in the blood is not known but many clinicians—Keith, Rowntree, Fishberg and others—have made this observation.

In cases of edema associated with cardiac failure but with good renal function the purine diuretics may be tried. Theobromine and theophylline are the most effective but neither of them is dependable and the diuresis when obtained is usually of short duration. Since ammonium chloride and salyrgan can be as safely used as the purine diuretics, there is really very little reason to use them except as an adjunct in treatment.

Conclusions: Dr. Warfield, in his paper, has given a clear and concise presentation of the modern conception of the cause of edema. He has shown that in addition to the usual types of edema there is a number of cases of obscure origin, probably arising from disturbances in metabolism or in the secretions of the ductless glands or both. These cases respond to the usual treatment of edema with fluid and salt restriction and diuretics. I think Dr. Warfield may have obtained a good result in his case with the hypothyroidism if the patient has been able to tolerate thyroid extract. I have recently had two such cases.

Disturbances of the Female Urethra*

By W. G. SEXTON, M. D.
Marshfield

WHEN one considers the profound studies that have been spent upon the male urethra, it is indeed surprising to find that so little attention has been paid to the disturbances of the female urethra. "Cystitis," "irritable bladder," and "too high acidity of the urine" are among the most common diagnoses that are given to patients by general practitioners. It is well recognized now that cystitis is practically always a secondary condition, and, in the majority of instances, probably due to a lesion in the upper urinary tract. In many cases we may find that the female urethra is the true source of the symptoms. The recent studies in ketosis have indicated that litmus is not to be relied upon to determine the acidity of the urine. We must use an indicator such as chlorophenol red by which we can estimate the pH and then one finds that the problem in most instances of infection is to maintain a high enough acidity of the urine. "Irritable bladder" and "nervous bladder" are such vague terms that they should be eliminated entirely. It is high time that we endeavor to make an accurate diagnosis of these cases. In the few minutes at my disposal I shall attempt to briefly summarize some of the essential facts about the disorders of this important structure.

The female urethra is readily accessible to inspection and palpation. Its short length, its gradual curve, and relatively large caliber render its examination by any form of urethroscope simple and practical.

ANOMALIES

Anomalies of the female urethra are not very common. Hypospadias and epispadias are rare. We have encountered one case of epispadias with the characteristic wide separation of the symphysis pubis, a cleft through the clitoris and mons veneris, but with complete control of the vesical sphincter. Those who are interested in the unusual changes that occur in pseudohermaphrodism should read the Ramon Guiteras lecture delivered by Dr. Hugh Young at the last annual meeting of the American Urological Association.

INCONTINENCE

Incontinence still remains a very important and difficult problem. One must differentiate a true incontinence from the high grade of frequency seen in diabetes or from some irritative lesion of the urethra or bladder. All of these require a very careful history and neurological examination to rule out some form of cord bladder such as tabes or multiple sclerosis. The frequent use of intravenous pyelograms has demonstrated that many ectopic ureters have their orifices

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in the urethra or at times in the labia and are the source of the incontinence. These are often difficult to demonstrate by the routine cystoscopic measures. The history of these cases will reveal that the patient has had a certain degree of incontinence since birth.

INFLAMMATION

The most common source of acute inflammations of the urethra is a gonorrheal infection. It hardly seems necesary to emphasize that the gonococcus must be demonstrated by Gram's stain before a positive diagnosis can be made. I know of one young woman pronounced as having gonorrhea who developed a profound and lasting neurosis. It was later demonstrated that the lesion was in reality a trichomonas infection. Pus can readily be milked out of Skene's glands and a stain easily made. Trichomonas infections are very common and are now being recognized more often because attention has been called to them. Here, in addition to the marked frequency of urination, there is usually an intense itching, irritation of the skin, and a rather frothy vaginal discharge. In our experience we have found the organisms very readily in freshly voided centrifuged specimen of urine. The relief from this distressing condition, when properly treated, is most gratifying.

CHRONIC URETHRITIS

Chronic urethritis is by far the most common and distressing disturbance of the female urethra. The symptoms of the condition are variable. It is practically always associated with marked frequency, dysuria, and nocturia, but there may be any number of referred pains in the back, in the bladder, or only an indefinite sense of irritability. At times it is impossible for the patient to adequately describe exactly where her trouble is. These cases, upon cystoscopy, are negative, except for the findings in the urethra. They do not have a urethral discharge and the urinary findings may be negative.

Twenty-five years ago Hunner called attention to the frequency of chronic urethritis from distant foci of infection, especially from chronic tonsillitis. In recent years Folsom has cited the frequency of chronic urethritis with resulting stricture of the urethra. Chronic urethritis may lead to infection of the urethral glands and the formation of various sized polypoid growths around the vesical orifice which produce a great deal of dysuria. Dilatations of the urethra to overcome the stricture and the destruction of these polyps with high frequency current readily relieve this condition. In recent years many urologists and gynecologists have noted the frequency of chronic urethritis from a chronic endocervicitis. These cases have been thoroughly studied by many gynecologists and it is now known that repeated cauterizations of the cervix or a Strumdorf conical excision of the cervix, followed by repeated dilatations of the urethra, will in many instances cure the patient. The usual line of treatment has been instillation of two per cent mercurochrome or five per cent protargol in conjunction with the dilatation. Many men have advocated the use of the Elliot treatment and undoubtedly this will give relief in a large percentage of cases, but the equipment is very expensive; it requires very careful watching and takes a long time for each treatment. I do not believe that the Elliot treatment will ever become popular and should be reserved for cases that have resisted all other lines of therapy. In the past years there has been an agitation toward the use of short wave diathermy in some of these conditions, and while the preliminary reports indicate that it may be of advantage, the work is in more or less an experimental stage and since it is not without danger of burns, it should be reserved until more definite rules can be established.

CARUNCLES

Urethral caruncles are small reddish growths in the urethra that cause excruciating pain. The symptoms are way out of proportion to the size of the growth. They are exquisitely tender on palpation. Relief can best be obtained by destruction of the growth with diathermy, radio knife, or excision as recommended by Crenshaw. Caruncles may occur in early adult life, but the majority occur at the time of menopause. The Vienna school feel that this is an accompaniment of

menopause and may be relieved by repeated doses of calcium. Regardless of what line of treatment is followed, the caruncles have a tendency to recur. They practically never show malignant degeneration. This condition is at times confused with varying degrees of prolapse of urethral mucosa. Prolapse is practically always associated with a chronic urethritis and must be treated as such. Instillations of five per cent protargol with dilatations of the urethra will in most instances relieve the symptoms. Operative interference is really contraindicated because this does not reach the source of the trouble.

SUBURETHRAL ABSCESS

Suburethral abscess is not uncommon. This may be a result of some form of obstetrical trauma to the urethra and may not be manifested for months after delivery. The condition must be differentiated from a vaginal cyst, but pressure on the tumor will express pus into the urethra and endoscopic examination will reveal an opening into the urethra. Temporary relief may be obtained by dilating the urethra, emptying the sac by pressure, but a permanent cure invariably requires surgical removal of the sac.

MALIGNANCY

Counsellor has called attention to the rarity of carcinoma of the female urethra. In the past three months we have encountered two cases of high grade carcinoma arising from the cervix invading the vaginal walls to such an extent that it caused complete retention of urine by pressure on the urethra. The first case responded promptly to x-ray therapy with the 200 K. V. machine and is clinically cured. The second case is still under treatment and seems to be doing well. The urethra is especially sensitive to radiation. This should be used very cautiously. We now have under observation a woman who was treated in another city by radium applications to the vagina and developed an obliteration of the urethra by scar tissue so it was necessary for her to have a permanent cystostomy. In our experience we have seen very little evidence of trauma to the urethra except in conditions like suburethral abscesses. We have seen cases of vesicovaginal fistula develop after protracted labor, but in accidents causing pelvic fractures the injuries that we have encountered have usually been to the bladder itself, and not to the urethra.

CATHETERIZATION

Much stress has been laid upon the danger of catheterization, but not enough thought has been given to the fact that there must be some form of trauma to the urethra or some condition that causes a residual urine before a cystitis can develop. Dr. Cabot has frequently emphasized this point that has repeated the fact which was demonstrated at least twenty-five years ago that a pure culture of practically any organism can be introduced into the normal bladder and a cystitis will not develop. In other words, the real danger is not from catheterization but rather from infrequent catheterization. So many gynecological operations require separation of the bladder from the uterus that there is temporarily a neurological dysfunction of this organ. In these instances it is essential that the patients have repeated catheterizations or a temporary pezzar catheter inserted to avoid the cystitis. It has been our observation that many elderly, obese women, who have to lie quietly in bed for a week or two at a time develop a cystitis. We believe that a large share of these cases are due to the presence of bacteria around the urethra from a leukorrhea. Consequently, we have insisted upon the daily external douche, and since we have adopted this as a routine measure, we have seen very few cases of cystitis develop.

CONCLUSION

Disorders of the female urethra have been neglected. A careful history in practically all instances will indicate the site of the urinary disorder. If the upper urinary tract can be eliminated one must make a careful investigation of the urethra. Chronic urethritis and stricture are common. The urethra is easily accessible to a complete examination, and in most instances its disturbances can be readily corrected in the office without elaborate equipment.

Fractures of the Neck of the Femur*

By F. L. KNOWLES, M. D.
Fort Dodge, Iowa

IN THE time allotted, it seems advisable to omit a discussion of history, and launch rather directly into a few factors in the cause of fractures, comparative methods in reduction, methods of fixation, period of non-weight bearing, and finally to show a movie of my own technique of double parallel pinning, showing the patient during and after treatment.

First, the cause: In elderly people the extreme friability of many femur bones points directly, I believe, to an improper bone metabolism of long standing. In many cases the fracture occurs before the fall. Many of these patients give a dietary history of bread dunked in coffee, with variations. Almost invariably they have refused milk, with bravado, for a couple of decades. Briefly, the diet is one of long standing starvation imbalance. To reduce the occurrence of fractures of the hip, all practitioners should advise and insist that all patients from twenty to ninety years of age take milk, orange juice, fresh vegetables, high calcium and phosphate, high vitamin diet regularly, and have plenty of sunlight. It is just as essential to maintain good bone in adults as it is to grow good bone in children.

Second consideration: Methods of reduction. Dr. Gaenslen of Milwaukee has most excellently demonstrated, in his scientific research on hips, the frequency of the capsule being caught between the fragments. At the time of fracture, the fragments slip back into fairly good position. Only slight adjustment or manipulation is made by the surgeon, and fixation applied. This leaves the capsule still caught between the fragments. All too often the final result is good union of the lower half of the neck and very poor or no healing of the upper half. And the cause is interposition of a flap of the capsule. It is my conviction that in almost every case reduction should be done under brief ethylene anesthesia, using extreme flexion, manipulation, then forward right angle traction, then in abduction and ten degrees of internal rotation until x-rayed. This manipulation is necessary to remove the flap of the capsule from between the fragments and to reestablish alinement. To reestablish alinement without removing the flap of the capsule from between the fragments is the cause of many non-unions and delayed unions.

Third consideration: Methods of fixation:

External fixation:
- Sand bags
- Buck's extension
- Whitman cast
- Anderson splint

Internal fixation:
- Bone graft
- Ivory pins
- Nails
- Smith-Peterson pin
- Numerous pins
- My own method: double parallel pinning

Sandbags are to be condemned because of discomfort to a patient. Pain continues with every motion, and is an admission that you cannot handle the fracture, and simply await death, which is hastened by continued pain.

Buck's extension. In cases of intertrochanteric fractures, good results can be obtained by Buck's extension, but generally only by almost daily attention to the weights, position of the fragments, slipping of traction tape, open Stineman pin wounds, and many x-rays. In intracapsular fractures, results following treatment by Buck's extension are deplorably bad.

Whitman cast. Good results are obtained in intertrochanteric fractures and fairly good results in intracapsular fractures. This

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is a marked improvement over extension methods. The disadvantages of the Whitman cast method are the discomfort to these elderly people; the difficulty in handling the patient; the stiffening of the joints of that extremity; and the severe depressing effect on many patients. The most important disadvantage being the inability to completely immobilize the fragments. In cases with severe disturbance of blood supply, this may mean an eventual non-union.

Anderson splint. Although I do not use this splint, I believe it has many advantages over existing external fixation methods. In the final analysis, however, I question if it maintains complete fixation. It is in the high intracapsular fractures where absolute fixation over a long period of time is extremely important. It is my belief that the results obtained in high intracapsular fractures is the final criterion of the efficiency of the various methods of handling fractures of the hip.

The very fact that a number of orthopedic surgeons in the United States are turning their attention very definitely to internal fixation of fractures of the hip is proof that external fixation is not producing the results which they had hoped to expect.

Dr. Ryerson of Chicago and Dr. Albee of New York have, for a number of years, advocated the autogenous bone transplant. This has the advantage of preventing upward slipping, but does not control rotation of the fragments. The results in the difficult cases were definitely improved. Many years ago, Dr. Murphy used a plain nail. Dr. Smith-Peterson of Boston designed the Smith-Peterson pin which was a large fluted pin driven across the line of fracture. Although the operative procedure was a major one and he was careful in the choice of his patients, the results showed again a definite improvement in the more difficult types of intracapsular fractures. Dr. Gaenslen of Milwaukee for some months has used multiple small pins and reports very favorably.

DOUBLE PARALLEL PINNING

In the last part of this paper I should like to discuss a method which I have attempted to perfect, which I call "The Double Parallel Pinning", and explain briefly the points in its favor. In this method two one-eighth inch chrome nickel steel, drill-pointed pins are drilled through the trochanter and upper end of the shaft, across the line of fracture into the cortex of the head, being placed as closely as possible to the upper and lower borders of the neck. Onto each pin is soldered a ring at a definite measured distance, which ring strikes the outer edge of the cortex of the greater trochanter when the pin is completely inserted, thus preventing the pin from entering the joint. This is very important. These pins are left in place until solid union is obtained, and then are slipped out under local anesthetic.

Before showing the movies, I simply wish to emphasize the important points in this method of fixation.

1. Reduce the fracture under brief ethylene anesthesia by extensive manipulation to be sure the capsule is not between the fragments. Do not accept an apparently good x-ray picture as being properly reduced without manipulation. Always take both lateral and antero-posterior views.

2. Insert pins under local anesthetic, along the outer border of the femur. Do not use a local at site of fracture.

3. The type of pin used is one-eighth inch in diameter. Being extremely small, it does not greatly disturb the bone structure. It is chrome nickel steel, and has no reaction to the tissues. It is also extremely powerful, resisting bending, and is impossible to break.

4. The pin should have a drill point and should be drilled in with a hand drill. Driving the pin tends to break up the bone structure, and the pin does not lie as solidly in the bone.

5. A ring is placed on the pin at an exactly measured distance predetermined by measuring the x-ray of the good femur when the foot is internally rotated ten degrees. The upper pin being about three and one-half inches from the point to the shoulder, the lower pin about three and three-quarters inches from the point to the shoulder.

6. The pin should be drilled in under direct fluoroscopy. Blind pinning is to be thoroughly condemned. To get the best result, the pins should be very close to the up-

per and lower cortex of the neck, the wider apart the greater the stability of the fragments, and the closer to the cortex, the more solid the bone in which it is placed.

7. Antero-posterior x-ray and lateral x-ray should be taken after the pins are in place. The lateral x-ray should show the pins squarely in the center of the bone. It is possible to have the pins apparently in the bone in both views, and still have both pins miss the upper fragment. If you are not equipped to takes these views, this pinning should not be attempted.

8. The pins should be parallel. If absorption occurs in the neck, the muscle pull will keep the lower fragment slid along the parallel pins into constant firm contact with the upper fragment. If this cannot occur, non-union in these cases may result.

9. Test the hip before cutting off the pins to see that the leg can go through the entire range of motion, proving the pins are not in the joint.

10. Push the skin back and clip the pins so the ends will be buried deep under the skin. This puncture wound heals in seven to ten days.

11. Set the patient about three-quarters way up in bed immediately after operative procedure, and permit this motion from then on. Maintain motion in the hip, knee, and ankle. The patient can sleep on the side or back.

12. X-ray at five months. Do not remove pins until definite bony trabeculae are formed across the line of fracture. In high intracapsular fractures, this will be from seven to eleven months or even more.

13. Permit weight-bearing on crutches, but never to the point of pain at the site of fracture.

14. Remove pins under novocain. This can be done easily at the office.

Up to the present time, I have done twenty-seven double parallel pinnings, the patients ranging from fifty to eighty-nine years of age. These patients are extremely comfortable, and, if properly pinned, should have absolutely no pain during convalescence. The results as shown by the moving picture, I consider to be far better than I have ever attained by any other method. Instead of being contraindicated in the extremely old or in those with other severe ailments such as pernicious anemia, diabetes, extremely bad heart, or extreme debility, it is in these cases where it is particularly indicated. In some of these cases the general anesthetic is completely omitted, and a reasonable reduction accepted, and it is pinned under local. The pinning removes the pain and permits handling of the patient, and gives them a comfortable convalescence. In elderly people, I consider this comfort of the patient of utmost importance. All patients, regardless of age, are extremely enthusiastic in advocating its use, and I again maintain that the patient is of the first importance.

CONCLUSION

In conclusion I would say, in intertrochanteric fractures, the double parallel pinning adds immeasurably to the comfort of the patient, and it maintains motion in the hip, knee, and ankle. In intracapsular fractures, internal fixation adds immeasurably to the comfort of the patient; maintains motion in the hip, knee, and ankle; and assures a much higher percentage of excellent results due to the ability to maintain absolute fixation of the fragments over the extremely long period of time necessary to obtain solid bony union.

DISCUSSION

Dr. Jerome T. Jerome (Madison): The paper we have just heard is very clear, the information definite. Dr. Knowles is to be congratulated on the presentation of his method for solving a very serious problem. Undoubtedly a dietary deficiency of calcium and the vitamins in elderly people plays an important role in the etiology of fractures of this type. With advancing age there is a variable amount of absorption of the bony framework of the femoral neck. This leads to rarefaction of the cancellous bone and replacement of it by fatty marrow. There is a generalized osteoporosis incident to advancing old age, and in some cases this rarefaction seems to be more pronounced in the neck of the femur. A second factor which is important in the very aged is atrophy of disuse. A third factor is that reflexes are less active and muscle power is decreased in elderly people with the result that an unusual strain may be thrown on the bones.

These fractures are rare in children and young adults, and result only from severe violence. They are frequent in the elderly and may result from simply a misstep or a sudden twist of the body, throwing the weight entirely on one leg.

I agree with Dr. Knowles that manipulation is essential to proper reduction of fractures of the neck of the femur. No matter what method of fixation is finally used, whether it is a plaster cast in the Whitman position or metal pins to hold the fragments in place, it is important that reduction be accomplished first. The distal fragment is usually displaced backward and upward and is externally rotated. Several methods of reduction have been developed. The essential feature of them all is to apply moderate traction and with the knee flexed bringing the hip up to an angle of ninety degrees. This relaxes the capsule and the muscles and corrects the posterior displacement and the shortening. The thigh is rotated inward thirty to forty-five degrees to engage the fragments, and the leg then placed in abduction internal rotation and slight traction. If reduction is complete it will stay in this position with abduction if it is a transverse fracture of the femoral neck. The method of fixation can then be one of many.

In 1930 Dr. Smith-Peterson described a method of using a flanged metal nail and it has proved to be an excellent one for fixation in many of these cases. However, because of the large open operation required, it is often contraindicated in very elderly people who already have severe constitutional disease. A simpler procedure has recently been devised for inserting the nail without the attendant risk of a major operation. The principle involved is simply the use of a Kirschner wire as a guide. A Smith-Peterson nail is first prepared by boring a hole through its long axis. After adequate reduction has been obtained under fluoroscopic control, the hip area is surgically prepared, and a small incision made over the trochanter. The Kirschner wire is then inserted through the greater trochanter, up through the femoral neck and into the head of the femur, care being used not to go beyond the head into the acetabulum. This is done under fluoroscopic control so that the wire will exactly travel the long axis of the neck and into the center of the head. The nail is then slipped onto the wire and driven into place again using the fluoroscope. The head of the nail is buried under the skin and a couple of sutures put in. A plaster cast is not required. The patient can have massage, move about and sit up in bed. This is the method which in our hands has given the best results. Fixation of the fragments can be easily accomplished, it can be used on any case and much more freedom for the patient is allowed.

The one Dr. Knowles has devised and presented here has many excellent features. The pins can be used under local anesthesia and they are small enough so as not to disturb bone structure. They are drilled in under fluoroscopic control which is an excellent feature. Furthermore, the patient can easily move around in bed and can sit up, thus guarding against the one thing greatly to be feared in old people,—pneumonia. Dr. Knowles is to be complimented on his excellent piece of work.

Appendicitis; A Study of 1,743 Cases

By T. W. NUZUM, M. D.
Pember-Nuzum Clinic, Janesville

THE knowledge of appendicitis in its various forms, with its startling and tragic ravages in the fulminating variety, on the one hand, and its mild attacks of recurrent appendiceal colics on the other, with all its grades of severity between, is well understood and quickly recognized by the profession of today. There is, at the present time, a pretty general agreement as to the proper course of treatment to pursue or advise, especially where the cases are seen early and recognized.

We desire, by analyzing the above 1,743 cases met with in our clinic, to draw some conclusions which may be helpful, not only to us, but to our medical colleagues as well.

In a large number of cases the appendices contained faecal concretions, and in the recurrent cases, as a rule, the appendix had formed adhesions to other viscera. Many were club-shaped at the distal end and had constrictions in their lumen. All were obstructed from some cause. It is now recognized that appendicitis is an obstructive disease. It has been shown that the appendix of the babe is larger in comparison with its weight, than in the adult; and that the atrophic process begins soon after birth.

We have many times noted that the atrophic process is farther advanced at one point than at another, hence the likelihood to obstructions from gas, faecal matter, and so forth, being forced into the appendix and not finding a ready exit. When the appendix is thus ballooned and the walls made tense, the already meager blood supply is materially lessened, or entirely cut off. The native bacteria, that is, colon bacillus, become exceedingly active and permeate the strangulated tissues, hence the gangrene which we so often encounter at the end of twenty-four or thirty-six hours.

SYMPTOMS

Pain is present at the beginning in every case, though it varies greatly in degree, and often disappears when gangrene supervenes. Its character is cramp-like, but may be continuous and very severe. It may be referred to the gallbladder, and make it quite impossible to determine at first examination whether you are dealing with gall stone colic or appendicitis. Or the pain may be referred to the region of the navel, or to the opposite side, but local tenderness at or near McBurney's point can always be elicited by pressure, except in those rare cases of displaced appendix, and the pain is then often referred to the point where it was complained of before. Renal colic may cause confusion. In this lesion the pain radiates down toward the bladder and some blood cells are usually found in the urine.

Fever is usually present in the beginning, although we have seen the most acute fulminating type with the temperature very slight, or even subnormal. Nausea and vomiting are usually present, especially where there is food present in the stomach. Rigidity of the right rectus muscle is invariably present, and may be regarded as the most dependable symptom; it may also be found in other abdominal conditions, such as, cholecystitis, ruptured gastric ulcer, perforation of the intestine from any cause, acute pancreatitis, diverticulitis, and so forth.

Distention or tympanites does not occur until the intestines have become paretic, or are obstructed by pressure or adhesions. This rarely occurs where gastric lavage is properly used, and food by mouth entirely withheld. Constipation or diarrhoea may be present early in the disease, or the bowel movements may be entirely normal.

TREATMENT

Medical—Is there a medical treatment for appendicitis? We would say distinctly yes, and would say it should consist of gastric lavage, rectal feeding, an ice bag locally, and enough morphine hypodermically to relieve pain and quiet peristaltic motion. This line of treatment efficiently carried out will carry many a case of acute appendicitis to recovery, or to local abscess formation when a drainage operation becomes comparatively safe. But we have encountered cases where the patient, despite this treatment, has gone on to general peritonitis and death. And, who can not determine the outcome of any particular case?

We have also seen cases have repeated attacks, spread over six or more years, and finally get into deep trouble. One of the most pathetic cases which we have witnessed, was one where a young man had requested an operation and had been put off by his physician because his was a mild case, and he would soon recover and could have an operation later. On the fifth day of the disease, the appendix ruptured and he died at the end of three weeks of general peritonitis.

Surgical: Appendicitis is essentially a surgical disease. The laity are coming to know it, and the physician who fails to make an early diagnosis and recommend an early operation is held to account where things turn out disastrously. It is our duty, as physicians, to give proper advice, and to give it early, then if they choose the medical route, and things go wrong, we have done our duty, and they must bear the blame.

We will all agree that the time to operate is within thirty-six hours from the onset of the disease, and should this time pass, then the condition of the patient and the experience and judgment of the physician must decide; but we would suggest as a working guide that from the second to the tenth day of the disease is the danger period, to which there are many exceptions.

Incisions: In clean cases the gridiron is a favorite with us, although the McBurney is ideal where there are no complications; splitting of the rectus is available where a large amount of room is required; and the median line where the ovaries or tubes are to be dealt with. We crush the stump, tie it with catgut, and bury it in the usual fashion, and close with the peritoneal surfaces in opposition and turned out.

Postoperative treatment consists of rectal feeding with normal salt solution, and glucose per rectum, and no food by mouth for three or four days or until the bowels have moved freely. These patients are up

and able to go home in one week, with rare exceptions.

Pus cases: Where the accumulation is sufficiently high, we make a muscle-splitting operation, and open the abscess without opening the free peritoneal cavity if we can, and we do not break down many adhesions to find and remove the appendix. We have not yet been obliged to make a secondary operation for its removal, though we have removed it when we were operating for other causes.

Obstruction or serious interference with the faecal current has been very common, especially in advanced cases of tuberculous appendicitis of the dry adhesive variety for which we have little to offer either medically or surgically.

Obstruction of the faecal current by adhesions has followed in three of our series of pus cases as follows: Mr. C. D., in our series, made a fine recovery after draining by the rectal route. After ten weeks he was brought to our office suffering from acute obstruction of the faecal current, and upon operation we came upon a knuckle or loop of the small intestine which was strangulated by a band of adhesions until it was on the verge of gangrene. We liberated the loop of the gut after which the color was speedily restored, we removed the appendix, and the patient made a speedy recovery. Miss A., had suffered a severe attack of appendicitis, one year before, and was treated medically. She was taken suddenly with complete obstruction of the faecal current. She grew steadily worse until she became greatly distended and her condition was very grave, as was shown by faecal vomiting, rapid feeble pulse, and great prostration. A last resort operation was consented to by the parents and we found the caecum and ascending colon greatly distended with liquid faeces until it formed a great tumor which filled the abdominal cavity and crowded severely all other abdominal contents. The color was dark and showed beginning gangrene at two places, and there was a band of adhesions crossing the transverse colon which completely cut off or kinked it. After tying the bands of adhesions, and dividing the same, the gas and liquid faeces began to pass on which gradually released the tension of the caecum and ascending colon which allowed our whipping over with sutures and covering the necrotic areas above mentioned, and the patient recovered, though she was critically ill for some days, and on the twelfth day suffered an alarming intestinal hemorrhage, no doubt, from the sloughing of these necrotic areas.

I have had our records looked up and find the following various varieties of operations: Appendicitis, ruptured and gangrenous (prior to 1906 while I was still practicing in Brodhead), one hundred fifty with eleven deaths; acute appendicitis, five hundred twenty-nine with eight deaths; subacute and recurrent appendicitis, one hundred thirty-two with one death; chronic appendicitis, nine hundred thirty-two with eighteen deaths. This makes a total of 1,743 cases in all with thirty-nine deaths, or 2½% of fatalities.

The eighteen deaths in nine hundred thirty-two cases of chronic appendicitis seems too many, if there are no complications, and I have looked up the histories of these fatal cases. I find cases in that group which were diagnosed as carcinoma of the stomach, gall stones, intestinal obstruction, and cases which have died some months or years after the operation from causes which had no connection with the removal of the appendix. The following histories will illustrate. In a careful analysis of cases listed as chronic appendicitis we find: Two were obstruction of the bowel, one of the colon, and one the small intestine; one was complicated with nephritis; one died sometime later of pernicious anaemia; one died some years later from apoplexy; one died one year later of meningitis; two were suffering from duodenal ulcer; four were complicated with gall stones, one of these fell out of bed on the ninth night and broke open his wound; two had carcinoma, one of the stomach, and one of the ovary involving the intestines and omentum; one had obstruction following the operation.

CONCLUSIONS

From a careful analysis of the above we should conclude: first, appendicitis is al-

(Continued on page 169)

THE WISCONSIN MEDICAL JOURNAL

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« « « EDITORIALS » » »

Anesthesia in Thyro-Cardiac Patients

IN SPITE of increasing knowledge of the thyrotoxic state we still see patients who do not appear for relief of their disease until the heart shows signs of auricular fibrillation or of congestive failure. It is well recognized that even in the stage of considerable congestive failure, subtotal thyroidectomy has brought the patient back to useful and comfortable life. One still notes echoes of the arguments as to how the heart muscle is actually damaged, but most men now believe that it is continued added work, the result of the increased metabolic demands of the body, and not a damaging of the myocardium by poisons, which eventually causes congestive heart failure.

Since it is possible for the competent surgeon to restore so many of the thyro-cardiac invalids to useful life, it becomes of paramount importance for him to operate upon these desperately ill patients with the minimum amount of risk from the anaesthetic.

It is always surprising to find out what power of reserve resides in a heart which seemingly has been unable to carry on the circulation adequately for some time. Many doctors appear to hang on to the old belief that a perfectly compensated heart lesion is a dangerous risk for anaethesia. When one sees persons with auricular fibrillation or with congestive failure take an anaesthetic and come through successfully, it is about time to revise one's belief in the inherent danger of anaesthetics in people with well-compensated heart lesions.

Given a patient with an abnormally acting heart upon whom a subtotal thyroidectomy should be done, what anaethetic is the safest to use? Dr. L. F. Sise* has answered this question very adequately. Granting that local anaesthesia, the method which comes first to mind, should be the safest, Dr. Sise recognizes very definite drawbacks. "1. These toxic patients are nervous and excitable and often react very poorly to the conscious state during operation. . . . . 2. Anaesthesia is inadequate in many cases . . . . 3. Under local anaesthesia the surgeon is more restricted."

Nitrous oxide gas has very definite dangers, the chief of which is the production of anoxemia. In the thyro-cardiacs the heart is already suffering from some lack of oxygen so that further to deplete the oxygen supply would put an end to the heart beat. There are some cases where it may be used but the anaesthesia can not be very deep unless supplemented by some other gas.

* J. A. M. A., 105:1662, 1935 (Nov. 23)

Ethylene is much favored in Dr. Sise's opinion. When combined with ether it has been used in the most seriously ill patients. One distinct advantage of ethylene is that it can be used with considerable oxygen, a great advantage. The author can not make up his mind whether he likes a combination of ethylene-ether or ethylene cyclopropane. His largest series of cases have had the former and he has seen no death which he felt could be attributed to the anaesthetic.

Cyclopropane alone has been quite safe. The fact that such large amounts of oxygen can be given with it, is of considerable importance. In very large doses there is toxic action upon the heart but in skilled hands it has proven to be an excellent anaesthetic. It can also be combined with ether in order to deepen the narcosis especially when manipulation of the trachea is necessary as the result of the situation of the goitre. Occasionally cyclopropane is given by intratracheal insufflation. A warning is sounded about using 10 per cent cocaine as a preliminary laryngeal spray.

In the last 100 cases operated upon there was a mortality of 3 per cent. There were 5 complications; one excessively rapid heart, one spontaneous pneumothorax, one hemiplegia, one hydrothorax, and one acute attack of dyspnea and palpitation. All these cases recovered completely.

He feels that certain precautions are almost more important than the kind of anesthetic. "1. Anoxemia is to be avoided especially in those cases presenting a damaged myocardium. 2. Obstruction to respiration is to be avoided. 3. Rather liberal premedication should be used to lessen nervousness and excitement. 4. The stimulating effect of carbon dioxide should be avoided. 5. The depth of anaesthesia should be nicely adjusted."

The return to useful life of so many of the seriously ill thyro-cardiacs is but another triumph in the age-long fight which the medical profession is making against disease. To hamper seriously the ever-forward progress by any method of coercion would appear to prove detrimental to the people who for hundreds of years have always benefited by advances in medical knowledge. L.M.W.

The Wisconsin Branch

WITH the entrance of the State and Federal Governments into every conceivable activity, the individual citizen is apt to adopt an increasing attitude of paternalism. It has become a byword for more and more of us to think, if not to say, "Let Washington do it."

Let us guard against drifting into the same channel of thought as concerns our own professional societies—the American Medical Association, the State Medical Society and the local county medical society. Frequently the remark is made "Why doesn't the A.M.A. do something about it?" Who is the American Medical Association?

The State Medical Society of Wisconsin is the Wisconsin branch of the American Medical Association just as each County Medical Society is a branch of the State Medical Society. You in turn are a line officer of your county medical society.

The American Medical Association, a truly democratic organization, was organized for the joint purpose of serving the public and the physician members. The American Medical Association, through its remarkable growth, has been divided into several integrated departments, and each of these departments is operated solely for service to the public and you as an individual member. Your American Medical Association is your service organization. It is a service organization to which you pay no dues, for the offices of the American Medical Association are financed through the income derived through the publication of the Journal of the American Medical Association.

Your central organization has always expressed the earnest desire to render you every possible service and they will continue to render you this service at your suggestion. We should not consider the American Medical Association as a substitute for our own efforts, but only as a supplement to the efforts of each individual physician, each county medical society and the State Medical Society of our own state. Jointly we are the American Medical Association in Wisconsin.

.... THE PRESIDENT'S PAGE ....

Where Does the Money Go?

LAST month, at the University Club in Milwaukee, was held the January meeting of the Council of the State Medical Society of Wisconsin. The complete proceedings of this meeting are published in full in this issue of the JOURNAL, and should be read by every member. However, official records of proceedings are highly impersonal, being nothing more, as a rule, than mere unadorned statements of facts. Such being the case, they do not hold a great deal of interest for the average reader, and it occurred to me that by means of a little comment and explanation, it might be possible to *humanize* these records, so to speak, and to stimulate more interest in the proceedings.

What I wish to do is to bring home to every member, as I have repeatedly said in the past, that the State Medical Society of Wisconsin is *your* society, that the officers are *your* officers, and that their only aim is to carry out *your* wishes to the best of their ability, in order that the interests of every individual practitioner may be conserved and advanced, which also means in the last analysis, the conservation and advancement of the interests of the public which is dependent upon us.

One of the most important duties of every January meeting of the Council is the setting up of the budget for the coming year, and it is possible that various items of this budget are not clearly understood by many members. It is of some of these items that I wish principally to speak.

Probably no physician among our members has an investment in his education and equipment that he himself would say cost less than $15,000.00. Our State Society dues for 1936 to protect this investment and to promote the joint interests of the public and profession, were, by unanimous vote of our delegates, returned to $15.00, or .001% of each of our respective investments.

Our annual dues to our State Society should of themselves be looked upon as an annual investment. Individually, we pay $1.25 a month,—how is this money used? To answer this question, I have gone over the budget and prepared a little individual summary, which I am presenting herewith. For purposes of brevity, I have grouped many of the budgeted items.

Of each member's $15.00 dues for 1936, $3.67½ will be used to employ our Secretary, who now enters upon his fourteenth year with us. No argument is needed to explain or justify this expenditure. Under modern conditions, with the manifold activities which we are compelled to undertake, no state society can possibly function at anywhere near its highest efficiency without a full-time Secretary, and for this office I believe that a layman is much to be preferred to a medical man. Think over the various services which the Secretary is prepared to render each individual member, the multitudinous and often extremely important questions which he can immediately answer, and then decide as to whether there is any place where one can spend so little, and obtain so much.

The office staff that publishes our JOURNAL and carries on all the manifold duties of a state office will require $3.90.

The WISCONSIN MEDICAL JOURNAL comes each month to every one of our members, at a cost to the individual of $1.28 a year. In passing, also, let me call your attention to the fact that our own publication is one of the best, and is outstanding in the field of state medical journalism. From whatever angle it is viewed, its standard of excellence is high; and if certain plans now under consideration prove feasible, it will shortly be made even better, and of more value to the physician in his day-by-day practice.

Note also that prior to the depression years, the WISCONSIN MEDICAL JOURNAL was self-supporting on the basis of advertising receipts alone. Due to the great loss in advertising revenue, the sum of $3,000.00 annually has been provided for the Journal through the budget in each of the past three years. During the past year, your Secretary has conducted a most active campaign for advertising, and this campaign is to be continued. The results are so encouraging that it begins to look as if, within another two or three years, the Journal will again be self-supporting.

Turning now to the next item in the budgetary distribution of each individual member's dues, we find that office space, telephone, telegraph, stationery, bulletins to the members, postage, insurance and miscellaneous costs of the office will require $1.93½.

Travel of the Secretary and the study of procedures elsewhere will use 80¢. This is an extremely important item. Our membership is actively interested in legislation, in the results of research and various studies, in proposed plans for medical service, and many other subjects. Due to the fact that he is in a position to impart authoritative information on these matters, our Secretary is in constant receipt of invitations to speak before County Societies and District Meetings, and also before lay groups. He accepts as many of these invitations as time will permit.

The services of legal counsel to our committees and members will use 45¢. This is another extremely important item, and the amount expended is insignificant in comparison to the value of the service. The Secretary is daily in receipt of communications from members asking information on various legal matters; such information must be authoritative, and if he is unable to furnish it himself, he must obtain it from a reliable source. Again, much committee work cannot go forward until all its legal implications are thoroughly understood, and this often requires considerable research and study. All of this must be paid for, but it cannot be dispensed with.

As for the remaining items of the budget, over and above exhibit revenue, 86¢ will be used to provide all expenses of our three-day annual meeting. The work of the many committees, their travel expense and that of the President, requires 93¢. Some 72¢ will be required for furnishing the public with the results of our studies in the field of sickness insurance, for perfecting our studies further, and for preparing our 1937 legislative program. The actual costs of material involved in our lay educational program will amount to 31½¢, and finally, 13½¢ remains unbudgeted to meet possible emergency needs arising during the year.

Such, in brief, is a summary and analysis of the budget, showing where the money goes. This budget is not set up in any haphazard manner. Some time previous to the January Council meeting, the Executive Committee goes over it in great detail, carefully scrutinizing and discussing each item. Everything which possibly can be, is weeded out. At the meeting of the Council, the budget is presented with the recommendations of the Executive Committee; these recommendations are not binding upon the Council, however, and further free discussion takes place before its final adoption, so that it finally comes down to what may be considered an irreducible minimum.

Let me urge every member to go over the above items carefully and conscientiously, and think over the manifold advantages and services which organized medicine gives him for $15.00. Then consider what it would cost an individual to obtain similar advantages and services at his own expense. The conclusion would appear to me to be inescapable that our dues are certainly not too high; the surprising thing is that we can get so much for such a small financial outlay. Again I say that our State Society dues should be looked upon as an investment, one which is sound in every way, and one upon which we receive an extremely high return.

Ralph M. Carter.

SOCIETY PROCEEDINGS

BROWN-KEWAUNEE-DOOR

Officers of the Brown-Kewaunee-Door County Medical Society who were chosen recently are the following: President, Dr. R. L. Cowles, Green Bay; President-elect, Dr. W. P. Tippet, Green Bay; Vice-president, Dr. F. C. Huff, Sturgeon Bay; Secretary-treasurer, Dr. W. A. Killins, Green Bay; Delegates, Dr. P. R. Minahan and Dr. O. A. Stiennon; Alternates, Dr. W. W. Kelly and Dr. W. E. Leaper; Censor (elected for a period of three years), Dr. C. J. Chloupek. W.A.K.

The January meeting of the Society was held on Thursday, January 16th, at the Northland Hotel at six-thirty o'clock.

Dr. Merritt L. Jones of Wausau presented a paper on "Back Injuries" illustrated by lantern slides.

CHIPPEWA

Drs. Arnold Schwyzer and Joseph Berg of St. Paul were the guest speakers at a meeting of the Chippewa County Medical Society on December 9. Both read papers on "Right Side Abdominal Pain". Present was one of the largest groups that has ever attended a meeting of the local society.

At the regular November meeting, the following officers were elected: President, Dr. Rollin Schwartz, Chippewa Falls; Secretary and treasurer, Dr. Richard S. Rodgers, Chippewa Falls. R.S.R.

COLUMBIA

A meeting of the Columbia County Medical Society was held on January 14th at Portage. It was a dinner meeting to which members of the Auxiliary were invited to attend.

Dr. W. E. Bannen of La Crosse, delegate to the American Medical Association, spoke on "Socialized Medicine".

Mr. Germann, director of Columbia County Relief, spoke on the cost of medical relief in the county and neighboring counties. A motion was made and carried that we accept the new relief schedule of fifty cents for office calls, with the remainder of the schedule the same as before. The cooperation of the Relief Department was pledged by Mr. Germann in handling W.P.A. cases.

Mr. Stark, La Crosse, collector for Dr. W. E. Bannen and Associates at La Crosse, appeared in person to apply for position of collection manager in our county for old medical and surgical bills. Mr. Stark's application was turned over to the Credit Bureau Committee.

A report was given by Dr. R. B. Dryer, Poynette, of the Public Relations Committee regarding publication in our local newspapers. The Public Relations Committee will meet again at a later date.

The Censor Committee agreed that we accept the transfer of Dr. John G. Moss of the Brown-Kewaunee-Door County Medical Society to our own Society.

It was decided to hold over the application of Dr. Arthur Harris of Adams-Friendship until a later date.

A motion was made and carried that the Censor Committee write to certain members and request their appearances at our next meeting in order to dismiss complaints lodged against them.

A Goiter Committee was appointed by the President as follows: Chairman, Dr. A. J. Frederick of Columbus; Dr. G. F. Treadwell of Friendship, and Dr. H. Y. Fredrick, of Westfield.

Columbus was selected as the next place of meeting which will be held on February 17th. The subject of the meeting will be "Goiter". C.J.R.

EAU CLAIRE

The following officers were elected at a recent meeting of the Eau Claire and Associated Counties Medical Society: President, Dr. E. L. Mason, Eau Claire; Vice President, Dr. R. F. Werner, Eau Claire; Secretary and Treasurer, Dr. S. L. Henke, Eau Claire; Censors, Dr. Nels Werner, Dr. W. R. Manz, and Dr. A. L. Paine of Eau Claire; Delegate, Dr. J. C. Baird, Eau Claire; Alternate, Dr. Oscar Knutson, Osseo.

At the January meeting of the Society which was held in Eau Claire at the Hotel Eau Claire on the 27th, the following papers were presented:

"Ten Minutes of Medical News" by Dr. R. E. Mitchell, Eau Claire.

"The Surgical Treatment of Pulmonary Tuberculosis" by Dr. J. W. Gale, Madison.

"Medico-Legal Medicine" by Dr. A. G. Sullivan, Madison.

FOND DU LAC

Dr. W. J. Bleckwenn of Madison discussed "Brain Injuries; Their Diagnosis and Treatment" before a meeting of the Fond du Lac County Medical Society on January 23rd.

KENOSHA

Dr. Louis A. Buie, chief of the section of proctology of the Mayo Clinic, addressed a joint meeting of the Kenosha and Racine County Medical Societies held in the Elks' Club on January 16th. Dr. Buie spoke on "Proctology for the General Practitioner, the Internist and the Surgeon".

LANGLADE

At a meeting of the Langlade County Medical Society, held at the Langlade County Memorial Hospital, the following were elected to office for the ensuing year:

President, Dr. L. A. Steffen, Antigo; Vice-President, Dr. E. G. Bloor, Antigo; Secretary-Treasurer, Dr. W. P. Curran, Antigo; Delegate, Dr. J. C. Wright, Antigo; Alternate, Dr. W. P. Curran. W.P.C.

MILWAUKEE

The January meeting of the Medical Society of Milwaukee County was held on the 10th at the Milwaukee Athletic Club. A symposium on cancer constituted the program as follows:

"Cancer of the Lip and Tongue" by F. B. McMahon, M. D.

"Cancer of the Skin" by M. J. Reuter, M. D.

"Cancer of the Stomach" by M. E. Gabor, M. D.

"Cancer of the Uterus" by Carl Henry Davis, M. D.

"Cancer of the Colon and Rectum" by Stanley J. Seeger, M. D.

"Urological Cancers" by W. M. Kearns, M. D.

"Cancer of the Nose and Throat" by J. S. Gordon, M. D.

"Cancer of the Breast" by W. C. F. Witte, M. D.

SAUK

The January meeting of the Sauk County Medical Society was held at the home of Dr. F. R. Winslow of Baraboo. Eighteen members were present. Following a business session, the meeting was given over largely to a discussion of medical relief problems.

SHEBOYGAN

The Sheboygan County Medical Society held its regular monthly meeting at the Hotel Foeste on January 21st in the form of a dinner meeting. Dr. W. W. Bauer, Director of the Bureau of Health and Public Instruction of the American Medical Association, spoke on "Doctors and Public Health". Dr. Bauer gave a very interesting and instructive talk on the public health work which is being conducted in other states.

Dr. W. H. Neumann appointed Drs. G. H. Stannard, C. J. Weber, and G. J. Hildebrand as the Committee on Goitre. W.V.Z.

WOOD

At a meeting of the Wood County Medical Society held at Hotel Charles, Marshfield, on January 21st, the following officers were elected: President, Dr. O. A. Backus, Nekoosa; Vice-president, Dr. J. B. Vedder, Marshfield; Secretary-Treasurer, Dr. W. G. Sexton of Marshfield. The program consisted of the following papers:

"The County Relief Situation" by Mr. Reuben A. Connor.

"Aspects of Tuberculosis" by Dr. Harold M. Coon, Stevens Point.

"Heart Block" by Dr. R. S. Baldwin, Marshfield.

"Cancer of the Cervix" by Dr. Paul Doege, Marshfield.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, OTOLOGICAL SOCIETY

On Saturday, January 11, 1936, at the Schroeder Hotel in Milwaukee, a meeting of the Middle Section of the American Laryngological, Rhinological and Otological Society was held, at which time the following papers were presented:

1. Address of Welcome. Eben J. Carey, M. D., Dean of Marquette University Medical School.
2. Address of the President. Thomas E. Carmody, M. D., Denver, Colorado.
3. Pharyngeal Lymphatics; An Unrecognized Focus of Infection. L. E. Brown, M. D., Akron, Ohio.
4. Aural or Acoustic Method of Treating Deafness; A Report of Further Investigation. Howard Ballenger, M. D., Chicago.
5. The Architectural Arrangement of the Nasal Arteries and the Angio-architectural Basis of the Common Cold. Prof. P. F. Swindle of the Department of Physiology of Marquette University, and Mr. Leo Massopust, Director of Department of Art and Photography of Marquette University. (by invitation)
6. The Treatment of the Nasal Accessory Sinuses Other than Operative. William Mithoefer, M. D., Cincinnati, Ohio.
7. The effect of Intensive and Prolonged Radium Therapy upon Malignant Disease of the Esophagus. A. C. Furstenberg, M. D., Ann Arbor, Michigan.
8. Fetal and Infantile Changes in the Region of the Fissula Ante Fenestram; A Site of Predilection for Otosclerotic Foci. (Illustrated with lantern slides and models). F. H. Bast, Madison.
9. Retropharyngeal Abscess Complicated by Rotary Subluxation of the Atlanto-Axial Joint. Ira Frank, M. D., Chicago.

MILWAUKEE NEURO-PSYCHIATRIC

Dr. Eben J. Carey, Dean of Marquette University School of Medicine, talked on "The Wave Mechanics of Muscle Motion" before a meeting of this Society on January 23rd at the University Club.

MILWAUKEE OTO-OPHTHALMIC

The January meeting of the Milwaukee Oto-Ophthalmic Society was held on the 14th at the University Club. Dinner was served at six-thirty o'clock, followed by the scientific program.

Dr. A. Kovacs presented a paper on "Plastic Surgery of the Nose, with Illustrations".

UNIVERSITY OF WISCONSIN

A meeting of the staff of Wisconsin General Hospital was held on Tuesday, January 7th. A symposium on "The Use and Abuse of Drugs in the Treatment of Cardiovascular Diseases" was presented by Dr. A. L. Tatum who discussed "Fundamental Pharmacology" and Dr. C. M. Kurtz, who spoke on "Cardiovascular Disease".

On January 16th, Dr. William Snow Miller, Emeritus Professor of Anatomy, presented an address on "Medical Schools—Past and Present, in Wisconsin". The meeting was public.

Dr. W. J. Bleckwenn, E. R. Schmidt and Mark Nesbit discussed the paper by Dr. Welwood Nesbit on "Intracranial Complications of Middle Ear Infection" which was presented on January 21st. On January 28th Dr. M. Fernan-Nunez of Milwaukee gave an illustrated lecture on "Tropical Medicine: Its Role in Modern Civilization".

THE WOMAN'S AUXILIARY

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Mrs. F. Gregory Connell, 420 Washington Blvd., Oshkosh
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Mrs. Arthur J. McCarey, 902 S. Madison St., Green Bay

Opportunities for Service; A Message From the President

IN VIEWING the work of the Auxiliary for the coming year, we appreciate the high grade accomplishments already achieved, that the Auxiliary has taken a stand on high ground and that we must make every effort to hold this position.

For a County Auxiliary to be of service in the community, it must be alive and have a definite plan of achievement and work untiringly to put this plan into action.

Our place in the medical society organization is to help promote public health education by serving as intermediaries between the medical profession and the laity.

In this period of rapid economic and social changes, each member of the Auxiliary owes to herself a general knowledge of legislation and proposed legislation affecting the medical profession, not alone for her own satisfaction but to be able to assist in plans for her organization.

One can easily obtain such material that has been prepared with great care and thought by the national chairman; and the general office of the American Medical Association in Chicago offers many pamphlets and various types of printed matter and has competent, well-informed speakers available for addresses before lay meetings that might be arranged for by the auxiliary; while Mr. Crownhart, Secretary of our State Medical Society, will be found always willing to help.

The fundamental aim of our work, our chief objective, is to improve good health by promoting the knowledge of elementary facts of hygiene, as is admirably accomplished in the publication, "Hygeia", which has been called the "Bible of Auxiliary Work".

With the very favorable subscription offer just made by the publisher, it should not be too hard for Wisconsin to retain its last year's record of first in the number of subscribers.

As an added activity, we as a group have been asked by the State Medical Society Committee on Medical History to help them in a work started last year.

This is their problem: The State Medical Society of Wisconsin in its early days neglected to keep a complete report of its history or the stories of their pioneers. This is now a great regret and they are attempting, at this time, to collect every available bit of early history, and have asked the auxiliary to assist them in contacting certain people in each county who might give information, letters, clippings, pictures of pioneers or of their early homes, instruments used in early practice of medicine, in fact anything which might make this Wisconsin medical history more interesting and colorful.

This extension of our activities should be the pleasure of each County Auxiliary, not alone as an aid to the Wisconsin Medical Society but for a certain interest which we all have in our early historic backgrounds. It might also serve as an object lesson and show how necessary it is for us to keep a record of our formative activities and of seemingly insignificant happenings in our own Auxiliary history.

So my message to each County Auxiliary is to build up your organization; add to your number; promote acquaintance among doctors' families and extend the true aims of the medical profession in health to the laity by increasing the circulation of "Hygeia" and in other ways best suited to your particular community.

Because of possible legal aspects of certain matters it is necessary that all activities be sanctioned by the advisory committee of your County Medical Society, who have been of great assistance in the past and for whose services we are deeply grateful.

Very truly,
(Mrs.) Isabella Connell.

Helping to Assemble Medical History

By MRS. T. D. SMITH
Neenah

As THE future of medicine rests largely in the hands of the physicians of today, so has its present status been built up by the stalwart doctors of the past half century. Our libraries contain many accounts of the exploits of these noble men, telling of the personal sacrifices they made in that early day. But how much closer we come to the very lives of these pioneers when we read their thoughts and experiences as they recorded them in their personal diaries and letters.

During our spring house-cleaning let's be on the lookout for any of these writings that have not as yet been destroyed and send them at once to Mr. Crownhart that the history they teach may be preserved for future generations.

The following excerpts are taken from letters written by Dr. Nathaniel S. Robinson, a student of Dr. Oliver Wendell Holmes at Harvard Medical School, and one of Neenah's early physicians. These letters were written to his wife in Maine.

Sheboygan, Sept. 9, 1858.

Dear Sallie: Landed here safe and sound after a long but tolerably pleasant voyage across the lake. We sailed from Collingwood Saturday evening. Had a heavy sea the next day. Monday awoke at Macanac, which is quite a romantic place. St. Macanac is a fort and village. The boat stopped at Beaver Island three hours. This is the island formerly occupied by the Mormans until two years ago when their leader Strange was shot and the band dispersed. We left this place about noon. As the night came the wind increased until it blew almost a hurricane and the boat was kept under the lea of a small island all night slowly cruising back and forth. At day break we put out on the lake passing the sleeping bear—there is a cut of it in one of our old harbors—kept on our course until noon—then turned back to within ten miles of the place we started from. Made a landing on Manito island. There we remained until yesterday morning—then had a smooth trip to this place. We had very good fare on the boat, good accommodations, good treatment. From this place to Neenah is about fifty miles. I expect to go forward tomorrow; to-day is raining.

This town appears to be quite large and there are many germans here.

Neenah, Sept. 13, 1858.

I arrived here yesterday a little weary from the ride from Sheboygan. I took the long road from the shore. The road to Fond du Lac and up the west shore of Winnebago is the way. Instead I took a direct course from Sheboygan to Neenah and such a road as it was I should attempt to describe in vain. It is enough to say that you could make but twenty miles a day. The country is heavily wooded with occasional openings by settlers—the soil very fine after the trees are cleared away. It will be a beautiful country fifty years from now.

I can see that this town is quite flat. The island is large—covered with trees, with streets turnpiked over the greater part of it. The streets seem to me much like a spiders web set to catch houses, but few as yet have fallen in. Menasha I came through yesterday—it is quite a large place. Tiger has stood the journey nicely, and is now kicking up his heels in a pasture. My traveling expenses so far are as follows: Self: $17—Tiger: $21.80—Wagon: $4.50. It is nothing to emigrate now. Conveyance is so easy and rapid.

County News Items

Milwaukee County

The Woman's Auxiliary to the Medical Society of Milwaukee County held its first meeting of the fiscal year on Friday, January 10th, at the Y. W. C. A. Instead of the usual luncheon, the meeting was a tea-musicale so that all members might greet the new officers and become better acquainted among themselves.

Mrs. Robert E. McDonald, Chairman of the Social Committee, was assisted by the following hostesses: Mrs. Wilson Hume, Mrs. Jerome Jekel, Mrs. J. J. Lettenberger, Mrs. Norman McBeath, Mrs. H. O. Zurheide, Mrs. Armond Ruppenthal, Mrs. Charles Becker, and Mrs. Urban Gebhard.

Past-presidents Mrs. James C. Sargent, Mrs. Rock Sleyster, Mrs. J. Gurney Taylor, and Mrs. Harry J. Heeb, presided at the tea table.

The program, which was as follows, was most enjoyable:

Prelude and Fugue in B Flat ---------- Bach
Etude F Minor)
Etude A Major) ---------- Chopin
Mrs. M. E. Gabor, Pianist

The Swan ---------- Saint-Saëns
Minuet ---------- Beethoven
Mrs. Lester M. Wieder, Cellist
Mrs. John E. Rueth, Accompanist

The Noble Lord ---------- Percival Wilde
The Secrets of the Heart ----------Austin Dobson
Miss Helen Burgess, Reader

Mrs. William Jermain, the new President, presided, and read the committee appointments for the year.

Mrs. Julius H. Sure, Chairman of the Membership Committee, presented these new members: Mrs. R. H. Feldt, Mrs. A. H. Hermann, Mrs. W. J. Houghton, Mrs. M. J. Kuhn, Mrs. R. E. Stockinger, Mrs. W. H. Studley, Mrs. P. F. Swindle, Mrs. W. A. Batchelor, and Mrs. F. E. Drew.

Outagamie County

The Executive Board of the Auxiliary to the Outagamie County Medical Society held a luncheon meeting on January 17th at the Hearthstone Tea Room. The purpose of this meeing was to discuss plans for the coming year and to acquaint committees with their various duties.

The President, Mrs. Laird, has appointed the following committees to serve for this year:

Program—Mrs. G. J. Flanagan, Kaukauna; Mrs. R. V. Landis, Appleton; Mrs. G. L. Benton, Appleton.

Public Relations—Mrs. E. W. Cooney, Appleton; Mrs. W. O. Dehne, Appleton.

Press and Publicity—Mrs. Wallace Marshall, Appleton; Mrs. C. A. Pardee, Appleton.

Hygeia—Mrs. William Towne, Hortonville; Mrs. G. T. Hegner, Appleton; Mrs. D. M. Gallaher, Appleton.

Historian and Archives—Mrs. A. E. Rector, Appleton; Mrs. G. W. Carlson, Appleton.

A general meeting will be held in March, the exact date to be decided later.

Racine County

The December meeting of the Auxiliary to the Racine County Medical Society took place at the Racine Country Club on the 12th, preceding a luncheon and bridge at which members of the Kenosha County Medical Society were guests.

Elections resulted in the choice of Mrs. J. F. Henken, Racine, President-elect, to take office in 1937; Mrs. J. F. Bennett of Burlington, Vice-president; Mrs. F. B. Marek, Racine, Secretary; Mrs. W. E. Buckley, Racine, Treasurer.

Mrs. F. W. Pope, retiring president, presented the gavel of the Racine County Medical Auxiliary to her successor, Mrs. I. F. Thompson, and Mrs. Pope's co-workers presented her with a corsage bouquet of gardenias in token of appreciation for her successful administration.

Mrs. Thompson announced the following appointments: Mrs. J. F. Henken, Public Relations; Mrs. H. B. Keland, Mrs. A. S. Pfeiffer, Hygeia; Mrs. R. M. Kurten, Program; Mrs. H. G. Brehm, Publicity; Mrs. S. Sorenson, Membership; Mrs. W. C. Roth, Telephone; Mrs. R. D. Jamieson and Mrs. Edmund Schacht, social co-chairman; Mrs. E. A. Taylor, History and Archives; Mrs. F. C. Christensen, Parliamentarian; Mrs. R. O. Peterson, Hostess.

The January meeting of the Auxiliary was held at the Hotel Racine. Following the luncheon, the Auxiliary enjoyed an interesting program arranged by the program chairman, Mrs. R. M. Kurten.

Two book reviews were given, one on "Fifty Years a Surgeon" which was read by Mrs. J. F. Henken, and another on "Rats, Lice and History" which was presented by Mrs. C. K. Hahn, Racine.

Marinette–Florence County

The Christmas ball which was sponsored by the Auxiliary to the Marinette–Florence County Medical Society was a very successful one, both socially and financially. It was the most brilliant event of the holiday season and was featured by the large attendance of college and other young people of Marinette and Menominee.

The purpose of the ball was to raise funds for the Auxiliary's educational program and the committee was so pleased with the result that it was decided to hold this event each year at Christmas time.

Mrs. J. V. May of Marinette was chairman of the group that had charge of the party.

The ball was held in the Crystal Room of the Hotel Marinette on December 26th and the charge per couple was $1.00.

Sheboygan County

The January meeting of the Auxiliary consisted of a very short business meeting after which the members adjourned for an afternoon of bridge followed by a tea at the home of Mrs. W. H. Neumann of Sheboygan. Honors at bridge were awarded to Mrs. C. J. Weber, Sheboygan, and Mrs. A. J. Brickbauer of Plymouth.

Committee chairman chosen by Mrs. W. H. Neumann, President are as follows:

Program—Mrs. A. J. Brickbauer, Plymouth; Mrs. Arthur Knauf, Sheboygan; Mrs. Robert Zaegel, Sheboygan.

Publicity—Mrs. W. G. Meier, Sheboygan.
Archives and Historian—Mrs. W. A. Ford, Sheboygan.
Hygeia—Mrs. F. A. Nause, Sheboygan.
Membership—Mrs. C. A. Squire, Sheboygan.
Public Relations—Mrs. C. J. Weber, Sheboygan.

News Items and Personals

Dr. Earl V. Hicks, New Glarus, has purchased the practice of the late Dr. Milton M. Stuessy of Blanchardville.

—△—

Dr. M. J. Fox of Milwaukee addressed the staff of the Holy Family Hospital at Manitowoc on January third. His subject was "Contagious Diseases."

—△—

Dr. L. B. McBain, formerly of Hartford, has become associated with the Bolton-Mielke Clinic at Appleton.

Dr. McBain is a graduate of the University of Wisconsin Medical School and served internship at the University of Kansas Hospital at Kansas City. He specialized in general surgery for two years at the State Hospital in Oklahoma City and during that time served one year as medical reserve officer in Oklahoma. For the past year he has been practicing in Hartford.

—△—

Dr. George H. Schlenker, formerly of Amherst, has moved to Westby to establish a practice.

—△—

Dr. Henry J. Gramling, Milwaukee, was recently honored at a staff meeting of St. Luke's Hospital, Milwaukee. Dr. Gramling was its first chief-of-staff and a portrait of him, the first to hang in the new staff room, was unveiled by his daughter, Dr. Frances Gramling, an associate member of the staff.

—△—

Dr. A. J. Pullen of Fond du Lac has announced his candidacy for representative in Congress from the sixth district on the Republican ticket. In 1916-20 Dr. Pullen served in the state senate.

—△—

Dr. E. W. Huth, Crandon, secretary of the Forest County Medical Society, has accepted a position in Chicago. Dr. R. H. Beech of Laona has been appointed temporary secretary.

—△—

Dr. Walter F. Lappley, who has been house physician at La Crosse Lutheran Hospital, has purchased the practice of Drs. Ford and Bray of Evansville.

—△—

Dr. G. V. I. Brown, Milwaukee, and Dr. V. B. Hyslop of Madison have recently announced their joint association in the practice of plastic and oral surgery. They are maintaining offices both in Milwaukee and in Madison.

STATE RADIO PROGRAM

Radio health messages are presented by the State Medical Society each Tuesday, Wednesday and Thursday morning at 9:00 A.M. These talks are broadcast over the state-owned radio stations,—WHA (940), Madison, and WLBL (900), Stevens Point.

The schedule for this month follows:

February 11—Mumps.
February 12—Your Heart.
February 13—Erysipelas.
February 18—Goiter.
February 19—Rheumatism and Arthritis.
February 20—Stuttering.
February 25—Nephritis.
February 26—Patent Medicine Testimonials.
February 27—Cancer.
March 3—Carbuncles and Boils.
March 4—Kidney Stones.
March 5—Bronchitis.

LADIES AND GENTLEMEN
YOUR HEALTH!
DRAMATIZED RADIO HEALTH PROGRAMS
of the
American Medical Association
Each Tuesday at 4:00 P.M. over the
N.B.C. Net Work

February 18—Heart Disease.
February 25—Crippled Children.
March 3—Cancer.
March 10—Hard of Hearing.

"AN ENJOYABLE HALF-HOUR"

Dr. S. E. Gavin, Fond du Lac, President-elect of the State Medical Society was honored at a testimonial dinner on January 23rd at the Hotel Retlaw, which was attended by members of the Fond du Lac County Medical Society and a few invited guests.

The program was opened by Dr. J. C. Devine, Vice-president of the County Society, who acted in place of Dr. R. G. Raymond of Brownsville, President, who was delayed in his arrival because of weather conditions. Dr. D. J. Twohig served as toastmaster. Those responding were Dr. T. J. O'Leary, Superior, past-president of the State So-

ciety; Dr. V. F. Marshall of Appleton, Dr. A. J. Pullen, Dr. E. V. Smith, Dr. C. W. Leonard, Dr. T. A. Hardgrove, Attorney John P. McGalloway, William Mauthe, M. Fitzsimons, Dr. A. C. Florin and Dr. J. J. Rehorst.

A number of physicians in various parts of the state had been invited but because of the extremely cold weather were prevented from attending.

BIRTHS

Daughter to Dr. and Mrs. Joseph Shaiken, Milwaukee, on December 13th.

Son to Dr. and Mrs. Sylvester Darling, Milwaukee, on December 18th.

Daughter to Dr. and Mrs. Morris Kretchmar, Milwaukee, on December 22nd.

ENGAGEMENTS

Dr. F. J. Naylen of Stevens Point and Miss Lucile Hardgrove of Fond du Lac. The date of the marriage has not been set.

MARRIAGES

Dr. Charles A. Vedder, son of Dr. and Mrs. J. B. Vedder of Marshfield to Miss Jane Du Chac on November second in Chicago. Dr. Charles Vedder is resident in surgery at St. Luke's Hospital, Chicago.

Dr. F. G. Jensen of Menasha to Miss Barbara Ann Newman, Minneapolis, on December 28th in Minneapolis.

Dr. Fritz Midelfart, son of Dr. and Mrs. Christian Midelfart of Eau Claire to Miss Helga Gundersen, daughter of Dr. and Mrs. Adolph Gundersen, of La Crosse.

DEATHS

Dr. D. B. Hamilton, Dodgeville, died on December 20th at St. Joseph's Hospital.

Born in Madison, August 30, 1876, he received his early education there and at the age of fourteen years moved with his parents to Milwaukee. He graduated from the College of Physicians and Surgeons, Milwaukee, in 1899. During the year he established his practice at Ridgeway where he remained for eighteen years. In 1917, Dr. Hamilton moved to Dodgeville and remained there.

He was a member of the Iowa County Medical Society, the State Medical Society, and the American Medical Association.

Survivors are his widow and two sons, Frank D., an attorney at Dodgeville, and Dr. William, who is serving internship in St. Paul, Minn.

Dr. Earl A. Linger, Oconto, died of pneumonia on December 22nd at a Green Bay Hospital. He had been ill for a month.

Dr. Linger was born at Norwich, New York, Jan. 18, 1888. He graduated from the University of Nebraska and from Rush Medical College in 1914. His internship was completed at St. Luke's Hospital in Chicago. In 1915 he established his practice in Rockland, Michigan, where he remained until 1918. He served in the army one year and afterwards came to Oconto where he began his practice in 1919 and where he remained.

He was a member of the Oconto County Medical Society, the State Medical Society, and the American Medical Association.

He is survived by his widow and one son, Dean, who is a sophomore at Carleton College, Northfield, Minn.

Dr. N. A. Pennoyer, Kenosha, died on December 26th at his home, following a long illness. He was eighty-six years of age.

Born in Cayuga County, New York, he came with his parents to Kenosha where his father became proprietor of the Kenosha Water Cure, which he purchased from Dr. H. T. Seelye and which he managed for thirty years.

Dr. Pennoyer attended the public schools there and then entered Hahnemann Medical College and Hospital of Philadelphia from which he graduated in 1870. Returning to Kenosha, he entered upon the practice of medicine at the Kenosha Water Cure. The institution was completely destroyed by fire in 1890 and several years later was rebuilt and it was then known as the Pennoyer Sanitarium. In 1919 the Pennoyer Sanitarium Company was dissolved, the institution having been sold to the Dominican Sisters and named St. Catherine's Hospital.

Dr. Pennoyer is survived by a niece.

Dr. T. C. Phillips, Milwaukee, died on January 4th at his home in Milwaukee.

Dr. Phillips was born in the year 1860 and was a graduate of University of Michigan Medical School in 1887. He had practiced in Milwaukee since that time.

Dr. Thomas N. Schnetz, Milwaukee, died on December 17th at his home. He was seventy-five years of age.

Dr. Schnetz was a graduate of Rush Medical College in the year 1884. He began his practice in Racine County and then came to Milwaukee where he remained until his death.

He is survived by three sons, Dr. Luther N. and Roy of Racine, and Dr. Percy E., dentist of Milwaukee.

Dr. Charles Mills Gleason, Manitowoc, Councilor of the fifth district of the State Medical Society, died Sunday evening, January 26th, at Holy Family hospital. Death was due to a heart ailment.

"'Simplicity and humanness are the basic attributes of greatness. From Homer to Mark Twain, the men who have profoundly affected their fellowmen have been unassuming, unconscious of self, simple, straightforward and direct.'

"Last Wednesday, as I was on my way to Manitowoc to attend Doctor Gleason's funeral, I read these lines by Channing Pollock in the current 'Readers Digest' and was stirred by the thought that this statement so well described my dear friend Charlie's outstanding traits. He showed greatness in his chosen profession because he forgot self in service for those who needed him. He was generous to a fault and ready to meet cheerfully all demands upon his time and energy even to the very end. What Robert Louis Stevenson said in his tribute to the faithful physician applies here:

" 'Generosity he has such as one who practices an art; never as one who practices a trade.'

"He was an ideal family doctor. He loved his fellowmen and they loved him.

"Charles Mills Gleason was born near Whitewater, Wisconsin, March 11, 1869. He came from sturdy, Christian pioneer stock. His father was a native of Wisconsin but his mother was born in England. From early youth his desire was to study medicine but as he had to depend upon himself to a great extent and the Whitewater Normal School was near at hand, he prepared to teach for a while and was graduated in 1891. After holding positions in at least two high schools, Ashland and Rhinelander, where he was principal, he entered Rush Medical College in 1897. For a period he was Doctor Haine's assistant in chemistry and always ranked high in his classes. He received his degree in 1901. I knew Charlie well in those days, through our fraternity affiliation, and without a doubt he would have passed the Cook County Hospital examinations, if he had not unfortunately taken sick at the very time the tests were being written. It was a keen disappointment to him, even though he spent a valuable year with Doctors Bouffleur and Tice in the old Monroe Street Hospital.

"Soon after locating in Manitowoc in 1902, Doctor Gleason learned to know Doctor A. C. Fraser and some time later bought his office and home when Doctor Fraser retired. For many years the sign in front of 811 York Street read, Doctors Fraser and Gleason.

"In 1904, Charlie married Miss Grace Barber, whom he first met and loved while both were students in the Normal School. It has been a beautiful and happy marriage; always sweethearts from schooldays on down through the years. They have had congenial tastes and interests; literature, music, travel and even baseball. Doctor Gleason has taken a prominent part in Kiwanis, civic, hospital and school activities. His thinking was clear and logical; he spoke with force and fluency, so that his presence in any deliberative body was exceptionally valuable.

"Space does not allow to refer to the many evidences of devotion which came from a host of loyal, loving friends and patients, both near and far, during the days immediately following our beloved friend's untimely passing, but those near to him will long remember, and never forget him, while life lasts.

"Doctor Gleason, during many years, took an active part in County and State Medical Society affairs. He seldom missed the State annual meetings. In September, 1934, he was elected Councilor of the fifth district and his death occurred shortly after the January meeting of the Council, which he had attended." D. E. W. W.

"A PORTRAIT"

"Thoughtful in youth, but not austere in age;
Calm, but not cold, and cheerful though a sage;
Too true to flatter and too kind to sneer,
And only just when seemingly severe;
So gently blending courtesy and art
That wisdom's lips seemed borrowing friendship's heart."

—Oliver Wendell Holmes.

SOCIETY RECORDS

New Members

Chester E. Myers, North Freedom.
Ernest V. Stadel, Reedsburg.
Forrest A. Fike, Reedsburg.
A. C. Edwards, 417 Oak St., Baraboo.
R. J. Hudson, Prairie du Sac.
J. A. Booher, La Valle.
H. O. Schneider, Monroe.
G. S. Darby, Brodhead.
E. V. Smith, Jr., 39-41 S. Main St., Fond du Lac.
L. J. Keenan, Hutter Bldg., Fond du Lac.
E. H. Grumke, Lime Ridge.
Louis B. McBain, Appleton.
J. P. Canavan, Neenah.
F. J. Brennan, 199½ Main St., Oshkosh.
D. M. Kelly, Baraboo.
J. F. Moon, Baraboo.
H. A. Schulz, Edgar.
A. H. Stahmer, Wausau.
A. J. Schmitt, 809 No. 8th St., Sheboygan.
J. M. Caputo, Milwaukee County Hospital, Wauwatosa.
H. P. Conway, Spring Valley.
G. E. Collentine, 239 W. Center St., Milwaukee.

Changes in Address

V. A. Chapman, Milwaukee to 1724 N. Highland Ave., Los Angeles, Calif.

E. K. Steinkopf, Statesan to Oak Sanatorium, Pewaukee.

Earl V. Hicks, New Glarus to Blanchardville.

Robert Irwin, Wauwatosa to 606 W. Wisconsin Ave., Milwaukee.

N. C. Erdmann, 1421 - 17th St., Two Rivers, to Dempsey Bldg., Manitowoc.

G. H. Jamieson, 812 Main, Racine, to 121 Hazel St., Oshkosh.

Resignation

Otis W. Saunders, Green Bay.

CORRESPONDENCE

FREE CHOICE UNDER F. E. R. A.

THE STATE MEDICAL SOCIETY OF WISCONSIN

Green Bay, October 31, 1935.

Mr. Alfred Briggs, Administrator,
Wisconsin Emergency Relief,
315 South Carroll Street,
Madison, Wisconsin.

My dear Mr. Briggs: Thanks to your direction of the Federal Emergency Relief Plan, Wisconsin, almost the only of all the states, has had free choice of physician among those who have assented to the allowance schedule. You, personally, have always been willing to recognize the professional problems involved, and to meet them to the very best of your ability under the regulations issued from Washington.

As President of the State Medical Society of Wisconsin, and in the name of the Society, I wish to thank you for your efforts, and to assure you that we appreciate most sincerely your very friendly spirit of cooperation.

With kindest regards, Sir, I am

Very truly yours,

RALPH M. CARTER, M. D.,
President.

"SPLENDID COOPERATION"

PUBLIC WELFARE DEPARTMENT
State of Wisconsin
315 South Carroll Street

Madison, Wis., December 13, 1935.

Dr. Ralph M. Carter, President,
State Medical Society of Wisconsin,
122 E. Walnut St.,
Green Bay, Wisconsin.

Dear Dr. Carter: In straightening out my desk, I find that I have not acknowledged receipt of your kind letter of October 31, in which you expressed appreciation of this administration's efforts in the conduct of a medical relief program.

By way of reply I should like to say that one of the principal factors which has contributed to the success of the medical relief program has been the splendid cooperation which local relief departments have received from the medical profession in almost every section of the state.

Without the whole-hearted and generous support of the medical profession, it would not have been possible to conduct a program of this kind.

With very best wishes,

Very sincerely yours,

ALFRED W. BRIGGS,
Director.

MEDICAL ECONOMICS

TO REFRESH YOUR MEMORY

With the cessation of direct federal relief for medical care of indigents, counties, towns, cities or villages will again have the responsibility of seeing that indigents have this treatment, and state laws, which were in effect temporarily suspended, will again govern. It is important that physicians called to treat the indigent appreciate the importance of securing proper authorization if they are to be reimbursed by the public for such services.

If a physician is to be reimbursed for his services rendered an indigent, he must have been authorized prior to the time that he performed the services. This is true regardless of whether the indigent presents an emergency situation or not. But if it is an emergency situation and there is not time for a formal application for aid, then the physician may obtain authorization from the town chairman, the village president, mayor or chairman of the county board (depending on whether the county operates under the county system or local system) unless some other official has been designated therefor.

The only exception to this general rule concerns hospitals and not physicians. A physician can order an indigent immediately hospitalized without previously obtaining authorization for the same when in his reasonable opinion "immediate hospitalization is required for indispensable emergency operation or treatment and prior authorization for such hospitalization cannot be obtained without delay likely to be injurious to the patient." In such case, however, liability for hospital bill does not attach unless within 24 hours after admission of the patient a written notice be mailed by the hospital or delivered to the proper official

reciting the name and address of the patient, the nature of the illness or injury and the probable duration of the hospitalization.

Transients, having no legal settlement in the town, city or village where they may be, must be taken care of at the expense of the county. If the county system applies, authorization must be obtained from the county chairman or proper official designated. If there is no county system, authorization should be obtained from the city, village or town officials. However, the county is made liable in the final analysis, and if local officials refuse authorization, then the physician should seek authorization from the proper county officials.

In cases coming within the contemplation of Chapter 142 referring to the Wisconsin General Hospital and specifically where cases are confined to a local hospital or at home because the county judge finds that the patient may be treated at the same or less expense to the county at home or in a local hospital, the county judge's order should not only include such findings but should designate the treatment of the patient, the hospital or the place of treatment and the physician or physicians in charge thereof. Upon final treatment of the case the physician's bill should be presented to the county court which, after being satisfied as to the correctness and reasonableness thereof, shall certify the same to the county treasurer who shall then be obligated to pay the bill.

10c A DAY

Mr. Bower Aly, author of the High School Debate Handbook, in discussing the subject: "*Resolved,* That the several states should enact legislation providing for a system of complete medical service available to all citizens at public expense", in the radio debate over the National Broadcasting System, made the following statement:

"And they have convinced me, these doctors (Medical League for Socialized Medicine) that they are right especially since they show that a program of complete medical care available to every person would actuallly cost only ten cents per day, per person. Did you hear that, ten cents per day per person."

This ardent debater for the affirmative of the debate question on the subject of "complete medical service at public expense", like the salesman advocating installment buying, tried to envelop the true cost of this "complete medical service" in a cloud of ambiguity.

The aggregate total would not be so appealing to the public. At the rate suggested by Mr. Aly and the League for Socialized Medicine, the cost to Wisconsin for a given year would be:

10¢ x 365 days—$36.50 Per Person Per Year.

$36.50 x 2,939,006 (Pop. Wis. 1930) $107,273,719.00 annual cost for Wisconsin.

We wonder what the radio audience's reaction would have been had Mr. Aly told them what the aggregate total for the United States would be at the rate of 10¢ per day, per person,—$4,481,289,179 per year.

"PRECONCEIVED SURVEY RESULTS"

In a recent address before the Holston Valley Hospital staff Mr. Barry C. Smith explained the position of the Commonwealth Fund of which he is General Director, and inferentially explained the position of "Funds" and "Foundations" with different objectives. It is encouraging to learn that officials in charge of at least one foundation had the perception to avoid being "taken in" by propagandists.

The address given by Mr. Smith so clearly confirms the factual findings contained in the pamphlet published by your Society "Sickness Insurance and the Propagandist Foundations" that it is here reprinted in its entirety.

AN ADDRESS*

By BARRY C. SMITH
General Director, The Commonwealth Fund

I should like, if I may, to devote the few moments at my disposal to a subject which is more or less to the fore these days, whenever a group of medical

* Address by Barry C. Smith, General Director of The Commonwealth Fund, at the Medical Institute of the Holston Valley Community Hospital, Kingsport, Tennessee, December 9, 1935. From The Journal of the Tennessee State Medical Association—January 1936, page 13.

men gather together, and to ask you to consider briefly the policy and attitude of The Commonwealth Fund toward that subject, in very concrete terms. I refer to the general question of medical economics, to the advocacy in certain quarters of various schemes which may be grouped under the general term "state medicine."

Some years ago there was organized an undertaking, with which you are all more or less familiar, under the auspices of a group known as the Committee on the Costs of Medical Care. There were a number of peculiar aspects to the work of this committee. As a body believed to be devoted to careful, thoroughgoing, impartial research, it attracted the interest of many persons who recognized that the cost of modern medical service falls heavily upon certain classes of people in this country and who favored a study which would ascertain the facts and examine in a constructive and scientifically critical manner various possible remedies. Such men as Dr. West, Secretary of the American Medical Association, accepted membership on the committee in that belief. The committee raised and expended somewhat over a million dollars, securing the greater part of it from eight different philanthropic foundations of which, I am glad to say, The Commonwealth Fund was not one. I have, of course, no authority to speak for any foundation except the one I represent; but I followed somewhat closely the activities of the committee, and I have no hesitation in saying that with two or possibly three exceptions the supporting foundations in my judgment contributed to the work as an impartial, fact-finding study for reasons precisely similar to those which led Dr. West and other gentlemen of like mind to associate themselves with the committee and later to refuse to sign what, in my judgment, was an absurd majority report published by the committee. The two or three exceptions mentioned were foundations which were frankly and openly favorable to socialized medicine, and it is perhaps a fair inference that they had some hope as to the direction in which the committee's findings might lead.

At any rate, there was never any doubt on the part of The Commonwealth Fund as to what might be expected to result from this report. A great deal of pressure was brought upon the fund over a period of two or three years to make appropriations to the committee's work, and the present speaker became somewhat unpopular in certain quarters because of the fund's refusal. It may interest you to learn that a person closely associated with the work of the committee, when asked early in the history of the committee what he anticipated would be the recommendations finally made, stated unequivocally, "Socialized medicine or health insurance." There is evidence that the study made by the committee was largely one of those research undertakings the results of which are to a considerable degree predetermined. Doubtless, much information of value was gathered; doubtless, also, much attention was devoted to the elaboration of the obvious. Much attention was devoted in one study, for example, to the collection of facts and figures substantiating the fact that persons with incomes of $5,000 a year spend more for medical care than persons with incomes of $2,000 a year—so they do on groceries, radios, and clothing; but those facts are fairly obvious and do not require the expenditure of large research funds to prove. On the other hand, despite the drastic recommendations of the final report, the committee did not sponsor a thoroughgoing study at first hand of the workings of the various forms of socialized medicine in those countries where it has been established.

Now, why do I mention all this? Simply because I wish to make clear to you the basis upon which The Commonwealth Fund has interested itself in the building of hospitals, in public health, in medical education, in the provision for postgraduate fellowships for practicing physicians, in such gatherings as this whereby you are enabled to profit by hearing distinguished medical men speak upon topics of their special competence. The Commonwealth Fund is vitally interested in seeing a better quality of medical service rendered, particularly in the smaller towns and rural districts where it is especially needed; it is interested, too, in the community health protection which can be provided by an adequate health department. It is *not* interested in interfering with the practicing physician's prerogatives in caring for the sick, and it even hopes to see the day when the private physician may, through the practice of preventive medicine, make a larger contribution to the prevention of illness than he does today. The fund is perfectly aware that medical service as rendered in the United States is not perfect; that not everybody who needs competent medical services receives it or is able to pay for it. Neither does the fund believe that perfection along these lines is attained, for example, under the English health insurance system, with the workings of which I am reasonably familiar and concerning which I have learned the judgment of many English physicians and laymen of mature judgment. Also, and most emphatically, The Commonwealth Fund does not believe that the solution of such problems, or even the moderate improvement of conditions, is to be found in propaganda, in studies with preconceived objectives.

Rather, the solution lies in an evolutionary process growing out of the detached judgment and interpretation of experience and of intelligent experiment in which the medical profession itself must take a large and important part—indeed the leadership—if results of value are to accrue. And, finally, the fund does not believe its proper function as a philanthropic endowment is to lend its support to frantic efforts to promote one side or the other in these highly controversial matters. It is con-

tent to do its mite in helping the physician to render a better service, to make available such facilities to that end as the Holston Valley Community Hospital provides, and to leave the development of the economic adequacy of medical service to a medical profession which, it has faith, desires to see such development in spite of the irritating advocacies of the ubiquitous propagandist.

In Tennyson's *Idylls of the King* occur the words, "The old order changeth, yielding place to new, and God fulfills himself in many ways." That is a favorite quotation by proponents of changes of all sorts who seem to believe that the new is always to be preferred to the old, just because it is new; and who see in these words of a famous poet both substantiation and a degree perhaps of religious sanction for their ideas. Actually, as I see it, the new is not necessarily better than the old, because of its newness, any more than the old is better than the new, because of its antiquity. I do not believe, and I am sure you do not believe, that the methods by which medical care is provided to our people at the present time are perfect either because of antiquity or tradition, or for any other reason. We all know that the cost of medical care and of many other things, including, one might say, radios, grand pianos, and automobiles, places a much greater burden upon some people than upon others, although there is perhaps less protest about these last-mentioned human needs. It is doubtless true that severe illness may be costly, unforeseen, and difficult to budget for. On the other hand, I do not believe, and I am sure you do not, that there is anything to be gained by rushing headlong into some scheme to distribute medical care through some half-thought-through scheme of socialization which may or may not—more likely the latter—prove either adequate for the patient or fair to the physician. Doubtless the English system of health insurance has advantages; doubtless also it is woefully inadequate and a long way from the perfection which some of its advocates in this country seem to believe it possesses.

Nevertheless, I do believe that there is under way today a process of evolution which will eventually bring changes in the ways in which physicians care for their patients. It will be most unfortunate if this change is so hurried by enthusiastic advocates that the result is unsound and inadequate; but I believe the medical profession needs to recognize this danger, to study the question, and to throw its weight and influence upon the need for careful scientific study and progress rather than, through inaction, or thoughtless nonconstructive opposition, to leave the whole question in the hands of partisan advocates who can neither be guided nor controlled.

As for The Commonwealth Fund, it is content to do what it can to promote a better quality of medical care and not take part in propaganda with which it has no proper concern.

High Schools in Wisconsin Debating the Question:

"RESOLVED: That the Several States Should Enact Legislation Providing for a System of Complete Medical Service Available to All Citizens at Public Expense."

BELOW are listed the high schools that have requested literature on the high school debate question for this year. If you know of any high school that is debating the subject "Socialized Medicine" that does not appear on this list, and whom you think would like literature on the subject, we will be happy to forward them any quantity they desire.

City	*School*	*Debate Coach*
Adams		E. L. Crerar
Albany		Wm. Kahl
Algoma		Miss Marion Boedecker
Alma		F. M. Noll
Amery		H. S. Merrill
Antigo		C. J. Nuesse
Appleton	Lawrence College	
Appleton	Russel Sage Dormitories	
Arcadia		W. B. Gautsch
Ashland, R.R. #3	Ondossagon	Philip Peloguin
Ashland	De Padua High School	Sister M. Madeleine
Augusta		O. P. Deuel
Baldwin		G. Tiedman
Baraboo		Margaret Jorgensen
Barron		Miss D. Schmuki
Beaver Dam		E. J. Goodrich
Beloit	Public Schools	H. O. Miller
Berlin		C. F. Shaw
Birnamwood		Miss Helene Waterman
Blanchardville		R. E. Long
Bloomer		Chas. Ross
Bloomington		Juanita Goold
Brandon		H. J. Vruwink
Brillion		C. H. Wileman
Brodhead		Miss Della Larkin
Bruce		Miss Ruth H. Bashman
Burlington	St. Mary H. S.	
Cambria		Miss Regina Beckmann
Cambridge		Miss Griffeths
Cedarburg		Not Known
Chilton		Arthur J. Imm
Chippewa Falls	Senior H. S.	Grace Walsh
Clayton		F. M. Robey
Clintonville		Not Known
Colfax		Arthur Bergee
Columbus		A. W. Jorgensen
Cornell		B. I. Carter
Cornucopia		Erwin Cudd
Cuba City	Cuba City H. S.	Robert Scott
Cumberland		Fred J. Moser

City	School	Debate Coach
Darlington		Curtis J. Trinn
Deerfield		E. M. Jahr
Delavan		Miss Gail Masters
Durand		C. P. Larson
Eagle River		E. W. Kracht
Eau Claire	Senior H. S.	
Eau Claire		C. D. Donaldson
Edgerton		John H. Hamburg
Elderon		L. E. Sloch
Elk Mound		S. O. Bergman
Elkhorn		H. M. Tall
Fennimore		Not Known
Fox Lake		Miss Anastasia Furman
Frederic		R. Bergstrand
Ft. Atkinson		E. E. Holmberg
Glenwood		Miss Tantha Powree
Grafton		Not Known
Green Bay		Not Known
Hammond		Leslie Lebakken
Hartland		Martha J. Jones
Hayward		Leo A. Lukes
Highland		Helen Wall
Hixon		Walter Handke
Holcombe		James Vance
Horicon		V. P. Alcott
Hortonville		Miss Marit Kelley
Hudson		Miss Helen S. Hughes
Ingram		A. A. Prochnow
Janesville	Janesville H. S.	Agnes Krog
Janesville	School for the Blind	Miss Ruth F. Rosenthal
Janesville	Milton College	Not Known
Jefferson		Miss Ruth Halstead
Kenosha		John D. Davies
Kewaunee		W. D. Clarke
Kewaskum		E. E. Skaliskey
Kaukauna		E. W. Ziebarth
Kimberly		Herbert Simon
La Crosse		Not Known
Ladysmith		Geo. W. Orme
Lake Geneva		W. S. Howell
Lancaster		M. Williams
Laona		Miss Dorothy Littel
Livingston		Not Known
Lodi		Miss Annadel Wile
Lone Rock		E. Ziehlsdorff
Loyal		J. R. Thomas
Madison	Wisconsin High School	
Manawa	Little Wolf	Earl C. Koch
Manitowoc		Not Known
Marinette		Not Known
Marinette	Our Lady of Lourdes School	Arthur J. Vennix
Marion		G. W. Crane
Markesan		A. A. Wipperman
Marshall		Miss Lucille Damon
Marshfield		Miss Lucile Benz
Mattoon		A. G. Neuwald
Mayville		O. E. Buth
Mayville		Ralph N. Schmidt
Medford		Guy G. D'Orazio
Mellen		Harold De Gracie
Menomonie		John B. Fleming
Menomonie	Dunn Co. Agri. School	Clara Moeschler
Merrill		C. J. Styza
Middleton		Gertrude Bruns
Milton		Miss Virginia Barrus
Milwaukee	Lincoln H. S.	L. C. Boyle
Milwaukee	St. John Cathedral H. S.	Sister M. Constantine
Milwaukee	State Teachers	J. R. Cotton
Milwaukee	Normal State College	
Milwaukee	Marquette U. School of Speech	Miss Pearl M. Heffron
Milwaukee	Mil. Downer College	Leigh Krahn
Milwaukee	West Division H. S.	A. A. Lange
Milwaukee	West Milwaukee H. S.	Erwin Schubert
Milwaukee	North Division High	Miss Celia Selzniek
Mineral Point		Not Known
Mishicot		Leo G. Bent
Mondovi		Miss Ina Weinbrenner
Monroe	Monroe Senior H. S.	La Von Jonea
Mosinee		L. Alta Stauffer
Nekoosa	Alexander H. S.	J. E. Rohr
Neshkoro		C. M. Lewis
New London	Washington	H. H. Braekhaus
New Richmond		Lucile Garley
Oconomowoc		O. A. Swanson
Oconto Falls		Earl S. Kjer
Oconto		John L. Parkinson
Oregon		Mrs. Marvel Atteson
Osceola		H. S. Paukert
Oshkosh	St. Peters H. S.	Sister Angelina
Oshkosh		Ross B. Rowen
Osseo		Not Known
Park Falls		Roger Holz
Plainfield		Not Known
Platteville		Royal D. Miller
Plymouth		P. Laufenberg
Portage		Miss Elizabeth Kelly
Port Edwards		Bernice Landaal
Port Washington		Miss Vera Mead
Potosi		C. P. Peterson
Prentice		Miss Signe Peterson
Princeton		C. J. Kreilkamp
Racine	William Horlick H. S.	Robert W. Nesmith
Racine	Washington Park H. S.	Mrs. Elizabeth Felten
Racine	St. Catherine's H. S.	Sister M. Hortense, O.P.
Randolph		W. E. Wasrud
Readstown		V. T. Groves
Redgranite		Miss Mabel Rasmussen
Reedsburg		Stanley Joslin
Reedsville		Mary Kabat
Rewey		H. K. Geyer
Rhinelander		L. E. Throling
Rib Lake		J. E. Branton
Ripon		E. J. Zander
River Falls	River Falls H. S.	
Scandinavia		Ruth Kussman
Seymour		John S. Denigan
Sextonville		H. E. Herrell
Shawano		Donald Olson
Sheboygan		A. E. Melzer
Sheboygan Falls		R. D. Miereva
Shell Lake		Bertha Benson
Sparta		Walter C. Pribnow
Spooner		Kenneth Kellett
Stanley		R. W. Boyer
Stevens Point	C. S. Teachers College	J. W. Burrny, Jr.
Stevens Point	Stevens Point Pub. School	Not Known
Stevens Point	St. Joseph's Academy	Sister M. Doloretta
Stockbridge		Mr. Nolan
Stoughton		F. R. Moes
Strum		H. J. Jensen
Superior	Cathedral H. S.	Sister M. Stella
Superior	East H. S.	R. M. Bole
Superior	Central H. S.	Everett Hagen
Taylor		Jeannette Van Gorden
Thorp		Raymond Lewis
Three Lakes		Geo. L. Fahey
Tigerton		J. W. Kestol
Tomah		M. A. McAdams
Tomahawk		A. H. Nickel
Trempealeau		Albert Harris
Two Rivers		S. Gunderson
Unity		H. Thies
Verona		Albert C. Jones
Viroqua		Miss Adia Larson
Washburn	Walker H. S.	Miss Katheryn Morris
Watertown		Lorena Brown
Waukesha		Roy C. Nelson
Waunakee		Ruth M. Fuller
Waupaca		Harold Monson
Wausau	Wausau Senior H. S.	A. L. Henderson

City	School	Debate Coach
Waupun		Eldon L. Johnson
Wauwatosa		John P. Hein
West Allis		C. E. Culien
West Allis		K. H. Lovett
Whitewater		Miss Marion R. Loomis
Wisconsin Rapids		C. E. Smith
West Bend		Elmer B. Ekio
West De Pere	Nicolet H. S.	Viola L. Beckman
Westfield		Stella E. Russell
Whitewater	State Teachers College	Eit. Evans
Wild Rose		Camilie Biott
Winneconne		Viola Bovee
Winter		Gordon McConnell
Wittenberg		L. P. Gordon

Income Tax Provisions Affecting the Medical Profession

I. FEDERAL

LIABILITY TO FILE

Returns must be made to the Collector of Internal Revenue of the District in which the individual affected resides before March 16, 1936, at which time the tax is due and payable. In the event the taxpayer desires to pay his tax on the installment basis, the first installment of one-quarter of the tax is due on March 16, 1936, and a quarterly installment every three months thereafter, namely, June 15th, September 15th, and December 15th. A written extension of the time for filing a return can be had for reasonable cause by filing application therefor with the collector of internal revenue in the district in which the applicant resides, but such application should be made sometime before March 16th, as a penalty may be imposed for failure to file.

Responsibility for making these returns is vested in the individual. As will be noted from reading the paragraphs following, liability to make a return depends not on whether one has a tax to pay, but on the amount of his reportable income.

Under regulations effective in 1935, all persons deriving incomes from a business or profession, or both, are required to file their return upon Form 1040 (the large form). This form is also used by persons reporting an income of $5,000 or over. regardless of the nature of its source. The small form, or 1040A, is for persons who secure their incomes from wages, salaries or interest alone, and where the gross amount is less than $5,000.

The large form, or 1040, will be mailed to all Wisconsin physicians by the Collectors of Internal Revenue. If such blank is not received, apply to the Collector of Internal Revenue of the district in which you reside.

Every person having a *gross* income of $5,000 or more must file a return, regardless of the amount of of his *net* income or of his marital status. Where a husband and wife living together have an aggregate *gross* income of $5,000 or more, they must file separate returns, or a joint return, regardless of the amounts of their joint or individual *net* incomes.

All of the following persons *must* file a return where their *gross* income was less than $5,000: (1) every unmarried person and every married person not living with husband or wife, whose *net* income was $1,000 or more; (2) every married person living with husband or wife, whose *net* income was $2,500 or more. Where the aggregate *net* income of husband and wife, living together, was $2,500 or more, each may make an individual return or they may unite in a joint return.

The normal tax rate for the calendar year 1934 under the Revenue Act of 1934 is 4 per cent on the *net* income in excess of credits. Surtaxes, which are graduated, are applicable only to those individuals whose net incomes (after deduction of personal exemptions and the credit for dependents, but no other credits) exceed $4,000.

If the marital status of a taxpayer changes during the taxable year, the personal exemption shall be an amount which bears the same ratio to $1,000 as the number of months during which the taxpayer was single bears to twelve months, plus an amount which bears the same ratio to $2,500 as the number of months which the taxpayer was married and living with husband or wife, or was the head of a family, bears to twelve months. For this purpose a fractional part of a month shall be disregarded unless it amounts to more than half a month, in which case it shall be considered as a full month. Changes in the credit for dependents allowed a taxpayer are apportioned in like manner.

EARNED INCOME CREDIT

A credit against net income, for the purpose of the normal tax only, is allowed by the 1934 law, calculated at 10% of the earned net income. All net income up to $3,000 is considered to be earned net income regardless of its source, and the maximum earned net income that may be considered is $14,000. Thus the maximum earned income credit allowable against net income for the purposes of the normal tax is 10% of $14,000 or $1,400.

Earned net income is defined as the excess of the amount of earned income over the sum of deductions and expenses properly chargeable against or allocable to the earned income. Under the statute earned income means "wages, salaries, professional fees, and other amounts received as compensation for personal services actually rendered." In a professional occupation the taxpayer may include as earned income all professional fees even though assistants perform the services, provided the clients are those of the taxpayer.

DETERMINATION OF INCOME

The term *gross* income as applied to a physician includes the total compensation received by him during the taxable year for professional services, in whatever forms such compensation may be paid, plus the amount received in interest, rent, dividends,

securities, or from the transaction of any business conducted by such physician.

The term *net* income as applied to a physician means the *gross* income computed under the above definition less allowable deductions for professional expenses. What constitutes allowable deductions will be considered in detail in the subsequent paragraphs.

The term *deduction* as applied to a physician means any amount allowable as a professional expense. Various classes of deductions are treated in detail below.

The terms *personal exemption* and *credit for dependents* have reference to the amounts allowed because of one's marital status or family obligations. These matters are treated in full detail in Instruction 22 of the income tax return blank.

ITEMS NOT REPORTABLE AS INCOME

The following items are not required to be reported because they are exempt from taxation. Allowances received under the War Risk Insurance Act; gifts, bequests, devises and inheritances; dividends on stock of federal reserve banks, land banks and intermediate credit banks; dividends from corporate earnings accumulated prior to March 1, 1913; amounts received through health, accident or workmen's compensation insurance, and damages received by the taxpayer for illness or injuries suffered by him; life insurance proceeds paid by reason of death of the insured (where a policy matures during life the amount of the proceeds, in excess of the net premiums paid, is taxable income); state court jury fees; stock dividends (i. e., issuance of its own stock by a corporation as a dividend to its shareholders); and compensation paid to its officers and employees by a state or political subdivision thereof for services rendered in connection with the exercise of an essential governmental function of the state or political subdivision.

All interest received from obligations of a state or political subdivision thereof; from securities issued under the Farm Loan Act; interest on first Liberty Loan 3½% bonds and U. S. bonds issued prior to September 1, 1917, and interest on the obligations of the possessions of the U. S. need not be included in the computation of *gross* income.

The following exceptions should be noted, however. Interest received on Liberty 4% and 4¼% bonds and Treasury 3%, 3⅛%, 3⅜%, 3¾%, 4%, and 4¼% bonds are exempt up to $5,000 aggregate principal. All interest received on such obligations in excess of $5,000 total holdings is reportable for surtax purposes, but is not subject to the normal tax.

PROFIT OR LOSS ON SALE OF CAPITAL ASSETS

All assets are considered to be "capital assets" except property or merchandise held by the taxpayer for sale to customers in the ordinary course of business. Thus stocks and bonds are included as capital assets.

The determination of taxable profit or deductible, loss from the sale of capital assets is changed materially in the 1934 law. The taxpayer must consider on the sale of capital assets:

100% of gain or loss if the capital asset has been held for not more than 1 year.

80% of gain or loss if the capital asset has been held for more than 1 year, but not for more than 2 years.

60% of gain or loss if the capital asset has been held for more than 2 years, but not for more than 5 years.

40% of gain or loss if the capital asset has been held for more than 5 years but not for more than 10 years.

30% of gain or loss if the capital asset has been held for more than 10 years.

The resulting gains and losses should then be balanced off against one another and the net difference reported as income if a gain and as a deduction if a loss. If the net difference is a loss, a further limitation is placed thereon in that the deduction on the tax return may not exceed $2000. These matters are treated more fully in Instruction 8 of the income tax return blank.

PERSONAL EXEMPTIONS AND CREDIT FOR DEPENDENTS

In the case of a single person, a personal exemption of $1,000 is allowed as a deduction from net income subject to tax. In the case of the "head of a family" or of a married person living with husband or wife, a personal exemption of $2,500 is allowed. If a husband and wife living together make separate returns, the personal exemption may be taken by either of them or divided between them, but may not exceed $2,500 in the aggregate.

A credit of $400 is allowed for each person, other than husband or wife, dependent upon and receiving his *chief* support from the taxpayer, if such dependent person is under 18 years of age, or is incapable of self-support because mentally or physically defective.

GREEN SHEET

The Commissioner requires the filing of duplicate income tax returns (green sheet). This will be made available to the proper state and municipal tax authorities when requested but is not available to the public.

INDEX TO DEDUCTIONS

An index of deductions which will be allowed on the tax return, some of which are peculiar to physicians, are listed below. The number given after each heading refers to the paragraph numbering on the pages following. The paragraphs explain in detail how to arrive at the deductions and depreciation.

With reference to depreciation allowable, the rate of depreciation not only depends on the pros-

pective life of the property when acquired but also on the particular conditions under which the property is used as reflected in the taxpayer's operating policy.

Automobiles (1).
  Depreciation.
  Insurance (1), (11-b).
  Maintenance.
  Professional use.
  Repairs.
  Salary of chauffeur.
Bad Debts (2).
Bandages (4).
Depreciation.
  Automobiles—25% annually on cost price. (1)
    Classification includes snowmobiles and other motive equipment.
  Instruments (4).
    20% annually on cost of surgical instruments and general equipment; 25% on cost of x-ray equipment.
  Medical Library (3).
    10% annually of cost price.
  Office equipment (5).
    10% annually of cost price.
Dues (7).
Equipment (4).
  Both long and short-lived.
Fire Losses (11-d).
  Professional equipment and other property.
Insurance Premiums.
  Automobile (1).
  Malpractice (11-b).
  Professional equipment (11-b).
Laboratory Materials and Expenses (4) (11-c).
Law Suits (11-a).
Library (3).
Licenses (8).
Medical Meetings (9).
Medical Supplies (4).
Office Expenses (5).
  Heat, light, supplies, telephones, water, short-lived office equipment, annual depreciation on furnishings and fixtures.
Office Rental (6).
Postgraduate Studies (9).
Professional Dues (7).
  County Society.
  State Society, $12.
  Special Societies as:
    College of Surgeons.
    College of Physicians.
  Any other paid in interest of profession.
Professional Subscriptions (7).
Salaries (10).
Scientific Meetings (9).
Sale of Spectacles (11-e).
Taxes and Licenses (8).
  Automobile license.
  State taxes on gasoline and oil required for professional use of car.
  License to prescribe alcohol.
  Occupational tax.
  Re-registration fees.
  U. S. Narcotic tax.
  Taxes on equipment or materials required in professional work.
Theft of Professional Equipment (11-d).
Travelling Expenses (9).
  Both professional calls and scientific meetings.
Wages and Salaries (1) (10) (11-c).
  Chauffeur (1).
  Clerk (10).
  Laboratory assistant (10) (11-c).
  Maid (10).
  Nurse (10).
  Stenographer (10).
  Any other employee rendering service in connection with taxpayer's practice or in the care and treatment of patients. (10).

DEDUCTIONS ALLOWABLE

1. Automobiles

The cost of operation and maintenance of an automobile used in making professional visits is deductible. These costs include gasoline, oil, tires, insurance, repairs, garage rental, and depreciation. If the same car is used for both professional and personal purposes, only such part of the maintenance as arises out of the use for professional purposes is deductible. Sums spent for taxi, bus, or railroad fare, while on professional calls, is deductible.

Depreciation is also deductible and is based upon the estimated useful life of the car. If that period be 4 years, 25% depreciation based on cost price may be taken annually for 4 years. What has been said with respect to automobile applies to other motive equipment.

2. Bad Debts

If the physician's books are kept according to the "Cash Receipts and Disbursements" system, he may not charge off any unpaid debts because "if his books are kept according to this system, he is only reporting as gross income those accounts which have proved to be good and therefore bad accounts cannot be deducted because they have already been excluded."

If the books are kept upon an "accrual basis" (that is, on the basis of expenses actually incurred and payable even though not yet paid, or income earned although not yet collected), it is permissible to charge off all debts which have been definitely ascertained to be worthless, and have been charged off on the books or records, during the fiscal year covered by the report. *We urge all members who may be keeping accounts on the "accrual basis" to secure permission to change to a cash basis.*

3. Library

Most physicians maintain a professional library. Taken as a whole it is doubtful whether the useful life of such a library exceeds ten years. Accordingly annual depreciation equal to 10% of the cost of such library may be deducted.

4. Medical Supplies and Instruments

Medicines used in the physician's office to treat patients, bandaging, laboratory materials, and all other medical supplies required for the operation of a physician's office may be deducted as necessary expenses, as may equipment, the life of which is less than one year. The average useful life of surgical instruments and equipment generally is estimated at 5 years which means that 20% of the cost may be taken as annual depreciation. X-ray equipment may be depreciated at 25% of cost annually.

5. Office Expense

General office expense is deductible. Among the principal items are heat, light, office supplies, telephone rentals, water, office equipment having a useful life of a year or less, and depreciation on office furnishings and fixtures. Ten per cent of original cost is a reasonable average depreciation rate for office equipment, furnishings and fixtures.

6. Office Rent

If a physician pays rent to another person for office space, he is permitted to deduct the amount from his gross income. This includes regular office space in a rented home provided office hours are maintained there. Where a physician maintains his offices in a rented home he may deduct as rental expense only that proportion of the total rent paid which his office space bears to the entire house. If he owns his home and maintains an office in it, he cannot claim a deduction for office rent.

7. Professional Dues

Dues paid to professional associations to which he belongs in the interest of his profession are deductible. Subscriptions to all medical journals or scientific publications are likewise deductible.

8. Taxes and Licenses

Any taxes paid upon materials required in professional work are exempt. All licenses which the physician is required to take out may be deducted. This includes the license to prescribe alcohol, narcotic license, automobile license, local occupational and re-registration taxes, and state taxes on gasoline and motor oil for professional use of car.

9. Traveling Expenses

Traveling expenses necessary for professional visits to patients are deductible. Traveling expenses in bona fide attendance upon scientific meetings are deductible. The expenses of attending postgraduate medical courses are *not* deductible, however.

10. Wages and Salaries

Deductions are permitted for the salary of a nurse, laboratory assistant, stenographer or clerical worker employed in the office so long as the duties of such persons are in connection with the physician's professional work. Wages paid to maids taking care of the office and answering the telephones are also deductible, as are any sums paid employees for services rendered in connection with the taxpayer's practice, or the care and treatment of patients.

11. Miscellaneous

(a) Expense of Defending Malpractice Suits—Expenses incurred in the defense of a suit for malpractice are deductible as business expense. Expenses incurred in the defense of a criminal action, however, are not deductible.

(b) Insurance Premiums—Premiums paid for insurance against professional losses are deductible. This includes insurance against damages for alleged malpractice, against liability for injuries by a physician's automobile while in use for professional purposes, and against loss from theft of professional equipment, and damage to or loss of professional equipment by fire or otherwise. Under professional equipment is to be included any automobile belonging to the physician and used for strictly professional purposes.

(c) Laboratory Expenses—The deductibility of the expenses of establishing and maintaining laboratories is determined by the same principles that determine the deductibility of other corresponding professional expenses. Laboratory rental and the expenses of laboratory equipment and supplies and of laboratory assistants are deductible when, under corresponding circumstances, they would be deductible if they were part of a physician's general office expense.

(d) Losses by Fire, Theft, etc.—Loss of and damage to a physician's equipment by fire, theft or other cause, *not compensated by insurance or otherwise recoverable*, may be computed as a business expense and is deductible, provided evidence of such loss or damage can be produced. Such loss or damage is deductible, however, only to the extent it has not been made good by repair and the cost of repair claimed as a deduction. Deductions may likewise be taken for loss of or damage to *non-professional* property of a physician caused by fire, flood, theft or otherwise, *where not compensated for by insurance or otherwise recoverable.*

(e) Sale of Spectacles—Oculists who furnish spectacles, etc., may enter as income money received from such sales and deduct as an expense the cost of the article sold. Entries on the physician's account books should, in such cases, show charges for services separate and apart from charges for spectacles.

II. STATE

LIABILITY TO FILE

Returns of 1935 income must be made to the assessor of incomes of the district in which the taxpayer resides, on or before March 15. A written extension of the time in which to file may be granted for cause, but may not exceed 30 days.

II. STATE

The information herein contained is based upon the Wisconsin Statutes, 1935, Laws of Wisconsin, 1935, Rules and Regulations of the Wisconsin Tax Commission under the Income Tax Act of 1931, published September, 1932, and the forms to be used in making 1935 returns. It should be noted that the three-year average feature is no longer operative; that there have been no changes in personal exemptions or credits for dependents, nor in normal tax or teachers' retirement fund surtax rates; that the Emergency Income Tax Act of 1933 was effective for that year only.

Chapter 505, Laws of 1935, provides a surtax on net incomes of all except corporations, which tax is equal to 60% of the normal income tax. This refers to incomes received in the years 1935 and 1936.

Every person, including emancipated minors under 18 and minors 18 to 21, who received a net income of $800 or more, if single, and $1600 or more if married, must file a return whether notified to do so or not.

The normal tax, which is graduated, varies from 1 per cent on the first $1000 of net income to 7 per cent on net incomes in excess of $12,000. The teachers' retirement fund surtax is based on 1/6 of normal taxes after deducting $37.50 from the gross surtax.

In general, the definitions contained in the preceding federal income tax digest are applicable as well to state taxes.

INSTRUCTIONS ON THE FILING OF SEPARATE INCOME TAX RETURNS FOR HUSBAND AND WIFE

Section 71.09 (4) (c) requiring that the incomes of husbands and wives be combined for assessment purposes has been held unconstitutional by the United States Supreme Court. To give effect to this decision the Tax Commission has adopted the following regulations:

1. Wives must file a separate return on Form 1B if they have income of their own, but in case they have no income no return need be filed.

2. In the event that both husband and wife have income and file separate returns, the personal exemption of $17.50 will be divided between the two according to their own choice, that is to say, the husband may claim it all, or the wife may claim it all, or they may divide it between them as they see fit.

In the event that they express no choice in the matter of the division of the personal exemption, the assessor of incomes shall divide it between them so as to give them the full benefit of the deduction. To illustrate, assume the husband has an income of $2,000.00 and the wife an income of $500.00, and they express no choice as to the division of the personal exemption. The assessor of incomes will apply $5.00 of their personal exemption against the wife's return, thereby wiping out the tax on her entire income, and apply the remaining $12.50 against the tax of the husband.

3. The income of children under eighteen years of age shall be included in the return of the husband or head of the family, and the personal exemptions for such children shall likewise be allowed to the husband or the head of the family, unless it can be established to the satisfaction of the assessor that they are in fact being supported by the wife, in which event the wife will be entitled to deduction for the personal exemptions of the children.

PERSONAL CREDITS AND EXEMPTIONS

The statutes themselves are so clear as to personal exemptions, credits for dependents, and the date determining the personal status of a taxpayer for income tax purposes that they are quoted here in full:

"71.05 *Exemptions.*

(1) There shall be exempt from taxation under this chapter income as follows, to-wit:

(a) Pensions received from the United States.

(b) All inheritances, devises, bequests and gifts received during the year.

(c) All insurance received by any person or persons in payment of a death claim by any insurance company, fraternal benefit society, or other insurer, except insurance paid to a corporation or partnership upon the policies on the lives of its officers, partners or employes.

* * *

(2) There shall be deducted from the tax after the same shall have been computed according to the rates in section 71.06, a personal exemption for natural persons as follows:

(a) For an individual, eight dollars.

(b) For husband and wife or head of a family, seventeen dollars and fifty cents. For the purposes of this chapter, the term "head of a family" means a natural person who maintained a household and supported therein himself and one or more persons who were dependent upon him for support; but no additional exemption shall be allowed for those dependent upon the head of a family except in case of a widow or widower supporting children under the age of eighteen years.

(c) For each child under the age of eighteen years who is actually supported by and dependent upon the taxpayer for his support, an additional four dollars.

(d) For each additional person, except persons defined in subsection (2) (c) of section 71.05, who is actually supported by and entirely dependent upon the taxpayer for his support an additional four dollars, except in case of head of a family. In computing taxes and the amount of taxes payable by

persons residing together as members of a family, the income of the wife and the income of each child under eighteen years of age shall be added to that of the husband or father, or if he be not living, to that of the head of the family and assessed to him except as hereinafter provided. The taxes levied shall be payable by such husband or head of the family, but if not paid by him may be enforced against any person whose income is included within the tax computation.

(e) The personal exemptions provided by this section shall be determined by the personal status of a taxpayer on the last day of the last year included in the computation of income except as otherwise provided in this chapter."

1933 LEGISLATIVE CHANGES

Among the changes in income taxation enacted by the 1933 regular session of the Wisconsin Legislature are five which are summarized here because of their applicability to physicians as well as to all other taxpayers.

1. Back Taxes and Refunds. The Tax Commission may conduct audits and collect back taxes at any time within 6 years after the close of the period covered by a given return, except that the Tax Commission is not barred by the lapse of any period of time in cases of evasion, fraudulent intent, or failure to file. Refunds are also obtainable by a taxpayer if he makes claim therefor within 6 years after the period for which he seeks such refund.

2. Compromise and Payment of Delinquent Taxes. Delinquent income taxes may be compromised by the Tax Commission, and the compromised amount including penalties and interest paid in convenient installments. This will prove highly advantageous to numbers of taxpayers now in arrears.

3. Computation and Payment of 1933 Income Taxes. Taxpayers are now required to compute their own income tax on the face of the return blank and to make an initial payment on or before the 15th of March unless their fiscal year varies from the calendar year. The initial payment must be the entire tax if the latter does not exceed $5.00, and must be at least ⅓ the total tax and not less than $5.00 if the tax exceeds the latter amount. The balance of the tax must be paid by August 1. A 2 per cent discount is allowed for payment in full by March 15.

The state income tax is now payable to the Tax Commission through designated representatives at the local assessor's office of the district in which the taxpayer resides.

4. Contested Assessments. The taxpayer who is contesting his income tax assessment may deposit the amount assessed plus interest to the first of the month following payment with the State Treasurer. If it later be determined that the taxpayer was over-assessed, the overpayment so deposited will be refunded with 6 per cent interest from the date of deposit.

5. Emergency Gift Tax. This law provides in brief that the donor and donee of any transfer by gift of property of any kind shall report such transfer on their respective income tax returns. Space is provided on the upper right hand column of the regular income tax blank for this purpose. The tax will be assessed by the assessor of incomes in the district in which the taxpayer resides and the taxpayer notified of the amount due, probably some time in June, 1934. The tax is imposed on transfers of property made between July 8, 1933, and July 1, 1937. The rates are graduated from 2 per cent to 8 per cent for gifts valued at less than $25,000 and reach a maximum of 15 per cent on large transfers. The principal exemptions from the tax are: (a) payments by an employer for the benefit of his employee or the latter's family, including medical services, and (b) transfers of reasonable amounts of property to members of one's immediate family for current maintenance, support and education.

DEDUCTIONS ALLOWABLE FOR PROFESSIONAL EXPENSES

A Statute

The statute is so explicit on what constitutes allowable deductions of major items of expense that it has seemed advisable to insert portions of it for the aid of physicians making state returns.

"71.04 *Deductions From Incomes of Persons Other Than Corporations.* Persons other than corporations, in reporting incomes for purposes of taxation, shall be allowed the following deductions:

(1) Payments made within the year for wages or other compensation for services actually rendered in carrying on the profession, occupation or business from which the income is derived. But no deduction shall be made for any amount paid for services actually rendered in the carrying on of the profession, occupation or business from which the income is derived unless there be reported the name and address and amount paid each person to whom a sum of seven hundred dollars or more shall have been paid for services during the assessment year. No deduction shall be allowed under this section for any amounts expended for personal, living or family expenses.

(2) The ordinary and necessary expenses actually paid within the year in carrying on the profession, occupation or business from which the income is derived, including a reasonable allowance for depreciation by use, wear and tear of the property from which the income is derived, * * *

(3) Losses actually sustained within the year and not compensated by insurance or otherwise, provided that no loss resulting from the operation of business conducted without the state, or the ownership of property located without the state, may be allowed as a deduction, and provided further that no loss may be allowed on the sale of property purchased and held for pleasure or recreation and which was not acquired or used for profit, but this proviso shall not be construed to exclude losses due to theft

or to the destruction of the property by fire, flood or other casualty. No deduction shall be allowed under this subsection for any loss claimed to have been sustained in any sale or other disposition of shares of stock or securities where it appears that within thirty days before or after the date of such sale or other disposition the taxpayer has acquired (otherwise than by bequest or inheritance) or has entered into a contract or option to acquire substantially identical property and the property so acquired is held by the taxpayer for any period after such sale or other disposition.

(4) Dividends, except those provided in section 71.02 (2) (b) 2 and 3, received from any corporation conforming to all of the requirements of this subsection. Such corporation must have filed income tax returns as required by law and the income of such corporation must be subject to the income tax law of this state. The principal business of the corporation must be attributable to Wisconsin and for the purpose of this subsection any corporation shall be considered as having its principal business attributable to Wisconsin if fifty per cent or more of the entire net income or loss of such corporation after adjustment for tax purposes (for the year preceding the payment of such dividends) was used in computing the average taxable income provided by chapter 71 * * *

(5) Interest paid within the year on existing indebtedness; provided, the debtor reports the amount so paid, the form of the indebtedness, together with the name and address of the creditor. But no interest shall be allowed as a deduction if paid on an indebtedness created for the purchase, maintenance or improvement of property, or for the conduct of a business, unless the income from such property or business would be taxable under this chapter.

(6) Taxes other than inheritance and special improvement taxes upon the property or business from which the income hereby taxed is derived paid by such persons during the year, including therein taxes imposed by the state of Wisconsin or the United States government as income taxes; provided, that such portion of the deduction for federal income taxes as may be allowable shall be confined to cash payments made within the year covered by the income tax return; and provided further, that deductions for income taxes paid to the United States government shall be limited to taxes paid on net income which is taxable under this chapter; and provided further that income taxes imposed by the state of Wisconsin shall accrue for the purposes of this subsection only in the year in which such taxes are assessed.

(7) Contributions or gifts made within the year to the state or any political subdivision thereof for exclusively public purposes, or to any corporation, community chest fund, foundation, or association operating within this state, organized and operated exclusively for religious, charitable, scientific, or educational purposes, or for the prevention of cruelty to children or animals, no part of the net income of which inures to the benefit of any private stockholder or individual, to an amount not in excess of ten per centum of the taxpayer's net income of the calendar or fiscal year as computed without the benefit of this subsection."

* * *

B. Index to Deductions

This index is designed to assist the physician in ascertaining what deductions are allowable. The number given after each heading refers to the paragraph numbering on the pages following. The paragraphs explain in detail what deductions and depreciation are allowable.

Automobiles (1).
- Depreciation.
- Insurance (1) (4).
- Maintenance.
- Professional use.
- Repairs.
- Salary of chauffeur.

Bad debts (2).
Bandages (9).
- Conventions (8).

Depreciation.
- Automobiles—25% annually of cost price (1).
- Instruments (9).
  - 20% annually of cost price of surgical instruments and general equipment; 25% on x-ray equipment.
- Medical Library (6).
  - 10% annually of cost price.
- Office equipment (10).
  - 10% annually of cost price.

Dividends Received (3).
Dues (12).
Equipment.
- Office (10).
- Professional (9) (16-a).

Fire, losses by (7).
Instruments (9).
Insurance Premiums (4).
- Automobile (1).
- Malpractice (4).
- Professional Equipment (4).

Interest Paid (5).
Laboratory Materials (9), (16-a).
Law Suits (16-b), (16-d).
Library (6).
Licenses (13).
Losses, by fire, flood, theft, suit, etc. (7) (16-d).
Medical Convention (8).
Medical Supplies (9).
Miscellaneous (16).
Office Expenses (10).
- Heat, light, supplies, telephones, water, short-lived office equipment, annual depreciation on furnishings and fixtures.

Office Rental (11).
Postgraduate Studies (14).
Professional Convention (8).

Professional Dues (12).
- County Society.
- State Society, $12.
- Special Societies as:
  - College of Surgeons.
  - College of Physicians.
- Any other paid in interest of profession.

Professional Subscription (6).
Salaries (15).
Sale of Spectacles (16-c).
Scientific Meetings (14).
Subscriptions (6).
Taxes and Licenses (13).
- Automobile licenses.
- Federal income and property taxes.
- Import duties, etc.
- Personal property taxes.
- Professional license fees.
- Real property taxes on office owned and used by taxpayer in practice.
- Wisconsin income taxes and surtaxes paid.

Theft, loss by (7).
Traveling Expenses (14).
- Both professional calls and scientific meetings.

Wages and Salaries (15).
- Chauffeur (1).
- Clerk (15).
- Laboratory assistant (15) (16-a).
- Maid (15).
- Nurse (15).
- Stenographer (15).
- Any other employee rendering service in connection with taxpayer's practice or in the care and treatment of patients. (15).

C. Explanations of Deductions

In seven instances below, references are made to numbered paragraphs of the federal portions of this digest. Such references make it unnecessary to recopy explanatory paragraphs applicable equally to the making of state and federal returns.

1. **Automobiles** (See Federal Digest, 1).

2. **Bad Debts** (See Federal Digest, 2).

3. **Dividends Received.** Cash dividends received from a corporation's surplus accumulated since January 1, 1911, are deductible by the persons receiving the dividends, if the following requirements are fulfilled:

(1) The corporation paying the dividend must have filed a Wisconsin income tax return for the year preceding the payment of the dividend.

(2) The income of the corporation paying the dividend must have been subject to the Wisconsin income tax law for the year preceding the payment of the dividend.

(3) The principal business of the corporation paying the dividend must have been attributable to Wisconsin for the year preceding the payment of the dividend.

If 50% or more of the entire net income or loss of a corporation, after adjustment for income tax purposes, for the year preceding the payment of a dividend, was used in computing the taxable income of such corporation, it will be considered that the principal business of such corporation was attributable to Wisconsin.

4. **Insurance Premiums.** Premiums paid for insurance against professional losses are deductible. This includes insurance against damages for alleged malpractice, against liability for injuries by a physician's automobile while in use for professional purposes, and against loss from theft of professional equipment, and damage to or loss of professional equipment by fire or otherwise. This further includes premiums for various forms of insurance on the building owned and used in connection with the practice, or a fair proportion thereof where the building is also a home. Under professional equipment is to be included an automobile belonging to the physician and used for strictly professional purposes.

5. **Interest Paid.** In general, all interest paid on existing indebtedness is deductible, except interest paid on indebtedness created for the purchase, maintenance, or improvement of property.

Interest paid on indebtedness created to purchase and carry securities the income from which is not subject to tax is not a proper deduction from gross income.

Interest paid on state and federal income taxes is deductible, but interest paid on fines levied for violations of law is not allowable as a deduction.

Interest paid by an individual on indebtedness created for the purpose of acquiring a home is deductible from gross income. Likewise, interest paid by an individual on money borrowed to pay personal debts, such as hospital bills and other family obligations, is considered a proper deduction from gross income.

Interest paid by an individual on money borrowed for the purpose of securing an education is allowable even though other expenses of obtaining such education are not allowable.

6. **Library.** A fair rate of depreciation on the physician's library may be deducted covering wear and tear sustained through use. In determining the rate, however, obsolescence may not be considered since the Wisconsin Income Tax Law does not recognize losses in value due to such causes. The fact that medical books become out of date during the course of ten years cannot be considered in determining the rate of library depreciation. An annual depreciation of 10% of the cost of such library seems reasonable, however.

Costs of subscriptions to scientific medical journals essential to keep the physician abreast with the progress of his profession are deductible.

7. **Losses by fire, etc.** Loss of and damage to a physician's equipment and other property, used by him in connection with carrying on his professional practice, by fire, theft or other cause, not compen-

sated by insurance or otherwise recoverable, may be computed as a business expense, and is deductible, provided evidence of such loss or damage can be produced. Such loss or damage is deductible, however, only to the extent that it has not been made good by repair and cost of repair claimed as a deduction.

Losses on automobiles, aircraft, summer homes, motor boats, furniture, etc., purchased and held for pleasure are deductible from gross income where sustained because of theft, fire, flood, or other casualty. Loses on property used for both pleasure and practice are deductible only to the extent that such property was used in the practice, unless such losses were sustained through fire, flood, other casualty, or theft when the entire loss is deducted.

8. **Medical Conventions.** Ordinary and necessary expenses incurred in attending medical conventions of professional scientific societies necessary to enable the physician to carry on his profession, are deductible.

Costs of attending professional conventions must be strictly limited to the necessary cost and expense directly attendant upon such conventions. The type of professional convention here contemplated is confined to such as are, as a general rule, ordinarily and generally attended by persons of the same professional standing as the taxpayer, as necessary to the maintenance and carrying on of their regular practice and profession.

9. **Medical Supplies and Instruments** (See Federal Digest, 4).

10. **Office Expenses** (See Federal Digest, 5).

11. **Office Rental** (See Federal Digest, 6).

12. **Professional Dues.** Professional dues paid to professional associations to which the physician may belong in the interest of his profession may be deducted.

13. **Taxes and Licenses.** All taxes and licenses incident to the professional scope of the physician may be deducted. The following taxes would be deductible by any physician:

(1) Real property taxes paid on office owned by him and used by him in his practice.

(2) Personal property taxes paid on his apparatus and equipment.

(3) Wisconsin income taxes and surtaxes paid.

(4) Federal income and profits taxes paid on net income subject to tax under the Wisconsin income tax law are deductible in the year in which actually paid in cash. The portion of a federal surtax paid on dividends from Wisconsin corporations is not allowable for Wisconsin income tax purposes, however.

(5) All license fees incident to his profession.

(6) Automobile licenses on automobiles used exclusively in the practice of his profession. See paragraph (1) supra.

(7) Import or tariff duties and business, license, privilege, excise, and stamp taxes, are deductible if incurred in connection with the carrying on of the taxpayer's practice and profession.

14. **Traveling Expenses** (See Federal Digest, 9).

15. **Wages and Salaries** (See Federal Digest, 10).

16. **Miscellaneous.**

a. Laboratory Expenses (See Federal Digest, 11-c).

b. Legal. Expenses incurred in the defense of a suit for malpractice are deductible as business expense. Expenses incurred in the defense of a criminal action, however, are not deductible.

Legal expenses incurred in connection with the operation of a taxpayer's profession are proper deductions unless such business is conducted in violation of the law. To be deductible, however, such legal expenses must be reported on form 9 or 9a.

c. Sale of Spectacles (See Federal Digest, 11-e.).

d. Unclassified. Payments required to be made for damages growing out of the carrying on of the profession such as injury to property, interference with property rights, breach of contract, and libel are deductible from gross income.

Miscellaneous expenses which are incurred in producing taxable income and are allowable deductions include the following: fees paid to auditors, tax experts, and lawyers in connection with income tax matters, welfare work expense incurred in keeping up the morale in an organization.

(END).

CANCER COMMITTEE

A meeting of the Cancer Committee of the State Medical Society of Wisconsin, with representatives from each councilor district, was scheduled to be held in Madison on February 4th. Following a discussion of problems of the Committee as relate to the state program, a luncheon meeting was to be held with representatives of the American Society for the Control of Cancer and the Wisconsin Federation of Women's Clubs and officers of the Woman's Auxiliary of the State Society. Prevention and early diagnosis of cancer is to be the central health objective of the Wisconsin Federation of Women's Clubs during the immediate years to follow.

The Physician and the Social Security Act; Features and Taxes Affecting Medical Profession Explained

I. SOCIAL SECURITY ACT

1. Social Security Act—General Purposes.

The Social Security Act adopted by the 74th Congress and approved on August 14, 1935,[1] is concerned with the social and economic welfare of those people to whom unemployment and old age have been an economic catastrophe. It is also designed to encourage by "matching" of funds the development of state aids for dependent children and the blind, and for the promotion of maternal and child welfare.[2]

2. Mechanics of Social Security Act.

Board and Duties. The Social Security Board is composed of three individuals not more than two of whom are members of the same political party, and, under specific provisions of the Act, is vested with the power of approving state plans which will dovetail with the federal plan for the alleviation and care of various socially dependent classes mentioned in the first paragraph of this memorandum. The specific duties of the Board insofar as they are concerned in this memorandum will be taken up in connection with the various subjects hereinafter discussed.[3] The present members of the Board are ex-Governor John G. Winant of New Hampshire, Chairman; Dr. Arthur J. Altmeyer, former Secretary of the Wisconsin Industrial Commission; and Vincent J. Miles, an Arkansas attorney.

Old-Age Assistance. Under Title I of the Act, federal aid is authorized to the several states for old-age assistance paid to people sixty-five years of age and over, and who are dependent upon the public for support. This aid may be as much as 50% of the state expenditures, with a maximum of $15.00 per month per individual in any one case. The appropriation authorized for the fiscal year beginning July 1, 1935, is $50,000,000; thereafter a sum sufficient. Only such states as have plans for old-age assistance approved by the Social Security Board shall receive grants.[4]

Old-Age Benefits. Under Title II of the Act, old-age benefits are to be paid on retirement from regular employment to qualified individuals except those in employments in political subdivisions, agriculture, domestic service, casual labor or employes of institutions operating exclusively for religious, charitable, scientific, literary or educational purposes, and which are non-profit.[5] In order to qualify for receipt of old-age benefits the applicant must be at least sixty-five years of age and have received in wages or salaries a total of $2,000 after December 31, 1936, and before the age of sixty-five years, some part of which total must have been earned in five different years after December 31, 1936.[6] The first calendar year in which benefits become payable under this Act is 1942.[7] Whenever a qualified individual is found to have received wages from regular employment *after* he is sixty-five, he loses a monthly benefit for each calendar month in any part of which such employment occurred.[8] The minimum monthly benefit under this plan will be $10.00 and the maximum $85.00.[9] No part of an annual wage in excess of $3,000 may be used in computing benefits.[9a] The Act provides for adjustments with individuals who have not qualified but who have contributed, as well as payments to the estates of those who have contributed but who died before reaching the age of sixty-five, or before receiving all the benefits to which they are entitled.[10]

Blind Pensions. In order to enable each state to render financial assistance to needy individuals who are blind the Act authorizes an appropriation of $3,000,000 beginning with the fiscal year July 1, 1935, and thereafter a "sum sufficient" to carry out this purpose of the Act. The Act sets out minimum qualifications which state plans must meet in order that the state be a recipient of the federal grant and requires that the Board approve such plans. The state plans must provide for financial participation by the state, provide for a single state agency to administer the plan, permit an appeal from denial of relief to the state agency and provide that the plan itself shall be in effect in all political subdivisions of the state. It is also required that the state agency report to the Board and that no aid be granted any individual who is receiving old-age assistance. The amount appropriated to each state to be used exclusively as aid for the blind shall be equal to one-half of the amount provided under the state plan, with a maximum of $15.00 per month per individual.[11]

Public Health Work; Dependent Children; Maternal and Child Welfare. The Social Security Act, also, authorizes federal aid to states for the promotion of maternal and child welfare,[12] aid to dependent children,[13] state and local child welfare services, crippled children's services, and public health work,[14] the total authorized appropriation for these purposes being approximately $37,000,000 per

year. The plan for each state must incorporate specifications similar to those required of state plans for aid to the blind. The federal government will contribute with respect to dependent children under the age of sixteen, a sum equal to one-third of the total expended during any quarter by the state. Where the state aid exceeds $18.00 for any month per child in one home, or where there is more than one child, $18.00 per month for the first and $12.00 for each of the rest, such excess shall not be counted in determining the basis for federal contribution.[15]

Unemployment Compensation. One of the most vital portions of the Act deals with unemployment compensation. Wisconsin, as is generally known, was the first state to enact an Unemployment Compensation Law, upon the theory that industry would thus assume responsibility for stabilizing unemployment. The federal Act was passed to protect employers against economic inequalities resulting from the enactment of state unemployment compensation laws by inducing all states to enact such laws.[16] As an inducement to create state plans, the Act permits an employer to credit against the federal tax the amount of contributions paid by him into the state fund up to 90% of the federal tax.[17]

In order to prevent competitive inequalities between the employers of several states, and to do away with the chief argument against unemployment insurance as found within the borders of any given state, the federal government secured passage of Title IX of the Act, upon the theory that the economic barriers to the successful adoption of state plans would thus be eliminated.[18]

The Social Security Act also contemplates the granting of federal aid, through the Social Security Board to assist the states in the administration of unemployment compensation laws duly "approved" by the Board. The present Wisconsin law was the first to be so approved, and while the Act authorizes such an appropriation, no money has yet been appropriated by Congress for this purpose, but it is expected that such an appropriation will be made early in the 1936 session. Contributions for administration of the state law may be decreased or entirely suspended at such time as federal administration aid becomes available.[18a]

Title IX, which became effective on January 1, 1936, levies an annual excise tax upon each employer of eight or more, subject to the offset mentioned. Briefly, the federal Act applies to employers of eight or more individuals who are employed on each of some twenty days during the taxable year, each day being in a different calendar week.[19] "Employment", as used in the Act, does not include agricultural labor; domestic service; service performed by an individual in the employ of his son, daughter, or spouse; service performed by a child under the age of twenty-one years in the employ of his father or mother; service performed for the government, federal, state or local; or service performed in the employ of a corporation, community chest, fund or foundation, organized and operated exclusively for religious, charitable, scientific, literary or educational purposes, no part of the net earnings of which inures to the benefit of any private shareholder or individual.[20]

FROM MR. WITTE

"Let me compliment you and your legal counsel upon the excellent memorandum you have gotten out on the Social Security Act and the Wisconsin Unemployment Insurance law. It is helpful that you should get this information to the Wisconsin physicians and you deserve credit for your enterprise in doing so."—*E. E. Witte, formerly Executive Director, President's Cabinet Committee on Economic Security, and drafter of the Federal legislation.*

3. Federal Taxes Imposed by the Social Security Act.

The Social Security Act imposes three new taxes, one of which is effective for the year 1936 and thereafter, and the other two for the year 1937 and thereafter. No taxes under this Act will actually be payable until 1937.

Income Tax on Employes. A tax, in addition to all other taxes, is levied on individual income received after December 31, 1936, from "employment", which is defined as in Title II of the Act providing for old-age benefits with the further exception of services performed by a person over sixty-five.[21] Beginning with the calendar year 1937, and including the years 1938 and 1939, the tax is levied at the rate of 1%; thereafter and for a three year period the tax is levied at a rate of 1½%; and thereafter for each three year period such tax increases at the rate of ½% until it reaches a maximum of 3% in 1949, continuing at that rate after such date.[22] The tax must be collected and paid by the employer (who is made personally liable for payment) by deducting the same from the employe's wages whenever payable.[23] The employe cannot claim a federal tax exemption for the amount deducted by his employer from his wages,[24] the tax being levied only on the first $3000 of his annual wages.[25]

Excise Tax on Employers. An excise tax on wages paid (up to $3000 annually) after December 31, 1936, is levied upon every employer in the same percentages and with the same general definition of "employment" as the employe's income tax above. The taxes imposed upon both employes and employers are to be collected by the Bureau of Internal Revenue under regulations to be prescribed

by it. These are not yet published but will doubtless be made available before the date when this tax becomes effective. Present income tax regulations with respect to fraud, non-payment, etc., will apply.[26] The apparent purpose of this section is to raise sums sufficient to cover the appropriations authorized by other sections of the Act, exclusive of the unemployment compensation appropriation. This device, viz., providing means for raising funds apart from the appropriation sections was probably used in order to avoid questions on the constitutionality of the tax by confining attacks to the social aspects of the measure itself. It should thus be pointed out that the funds raised by the Act are not earmarked and may be disbursed for purposes wholly unrelated to the Act.[27]

Tax Upon Employers of Eight or More. Employers of eight or more (under the provisions of the Social Security Act relating to unemployment compensation) will pay an excise tax amounting to 1% based on wages paid during the calendar year, 1936. On wages paid during the calendar year 1937, the employer is liable to pay an excise tax at the rate of 2%, and thereafter at the rate of 3%.[28]

A Wisconsin employer, contributing to the state unemployment fund, will be entitled to a credit of 90% of the federal tax imposed by this part of the Social Security Act. Thus if the amount due under the federal Act for the calendar year 1936 from a Wisconsin employer is $100.00, he may deduct $90.00 from this sum as an off-set, and pay only $10.00 to the Collector of Internal Revenue in full settlement of the federal tax.[29] The classes excluded from the operation of this title of the Social Security Act have already been enumerated earlier in this memorandum.[29a]

The Social Security Act provides further that a taxpayer may have additional credit allowance on the federal tax after 1937 if his contribution rate under the Wisconsin law has been reduced because of stabilized employment and favorable compensation experience.[30] The specific conditions permitting this additional credit are identical with those in the Wisconsin law, discussed in detail in later parts of this memorandum. The purpose of these provisions is to prevent the building up of excessive reserves, and to encourage the stabilization of employment.

The excise tax imposed on employers is collectible by the Bureau of Internal Revenue and is to be paid into the United States Treasury. The penalty for nonpayment is ½ of 1% per month from the due date until paid. Each employer is required to make a return of the tax for a given taxable calendar year not later than January 31, next, following the close of such year. Thus the first return is due January 31, 1937. The time for filing may be extended under certain conditions with a maximum of sixty days. The employer may elect to pay the tax in four equal installments, the first of which is due not later than January 31, the others at the end of March, June and September of the year in which the tax is payable.[31]

The Act further provides that no employer shall be relieved from compliance therewith on the ground that he is engaged in interstate commerce, or that the state law does not distinguish between interstate and intrastate commerce.[32]

It should be emphasized that the Social Security Act does not provide an unemployment compensation plan, nor does it provide for payment of any compensation benefits to any employe, or to any other individual out of funds raised by the Act. The unemployment provisions of the Act should be regarded rather as a device intended to encourage if not practically to force individual states to adopt approved unemployment compensation plans.[33] The amount of benefits, the period thereof, the persons eligible, etc., are left almost unreservedly to each state plan.

II. THE WISCONSIN UNEMPLOYMENT COMPENSATION LAW

The Wisconsin Unemployment Compensation Law, Chapter 108 of the Wisconsin Statutes was amended by Chapters 192, 272, and 446, Laws of Wisconsin, 1935, in order to meet the federal standards outlined in the Social Security Act. A number of substantial changes were made particularly in the phase of the law dealing with employers exempt from the compulsory Wisconsin law by reason of the fact that they had adopted voluntary systems approved by the Industrial Commission. Bulletins have been sent to all employers by the Industrial Commission to call attention to the fact that Wisconsin employers will not receive federal tax credits unless the revised provisions of Chapter 108 have been accepted by such employers. It is important to note that this warning refers only to those employers who are exempt from the compulsory provisions of the Wisconsin Unemployment Compensation Law as enacted prior to the 1935 amendments, because they have approved plans, such as bookkeeping reserves, for the purpose of providing unemployment insurance.[34] So far as those employers who comply directly with the Unemployment Compensation Law are concerned their continued compliance will entitle them to credit their contributions against the new federal payroll tax and they need take no special action to accept the revised Wisconsin Unemployment Compensation Law.[35]

A brief summary of the amended Wisconsin law is given below. This memorandum obviously cannot outline all details of the law, and thus is confined to its general provisions with particular reference to amended provisions enacted in the 1935 session of the Legislature.

DEFINITIONS

1. "*Employer*", except where the law by its own terms applies to each employer of one or more persons in Wisconsin, is defined in part as any person, partnership, association or corporation who, or whose predecessors in interest, has within each of eighteen or more calendar weeks lying wholly within the calendar year employed eight or more persons in employments subject to the law.[36]

Beginning with January 1, 1936, if any employer becomes subject to the law by reason of the fact that he has employed for a period of eighteen weeks, not necessarily consecutive, eight or more individuals in employments subject to the law, the employer then becomes liable for payroll contributions based on actual payroll from the first of the year *during which he first became subject to the law.* As an example of the application of this provision of the law, Employer Doe, who has never been subject to the law, employs seven individuals the first seven and a half months of 1936. About the middle of August, Doe adds another employe, and continues the services of that employe during the balance of the year. Employer Doe thereby becomes subject to the law beginning January 1, 1936, and must make payroll contributions thereafter. Should he discontinue the services of a sufficient number of employes so as to employ seven or less, having once been subject to the law, he continues subject to the contributions, etc., for a period of two years beyond the time when he ceased employing eight or more.[37]

Whenever an employer contracts with or has under him any contractor or subcontractor for any Wisconsin work which is part of his usual trade, business, profession or occupation, he shall be deemed to employ all persons employed by such contractor or subcontractor on such work for the purpose of determining whether he, as employer, employs enough persons to be subject to the law. Moreover, the principal contractor is alone liable for the contributions and benefits. If the contractor or subcontractor is himself subject to the law, then these "tacking" provisions do not apply.[38]

2. "*Employe*", unless the law clearly indicates otherwise, means any person employed by an employer and in an employment both subject to the law; such term also includes those brought under the law by the "tacking" provisions above.[39]

3. "*Employment*", as used in the law, means any personal service for pay during any week in which all or the greater part of the person's hours of work is or was performed within Wisconsin under any contract of personal service for pay, or contract of hire, express or implied, oral or written, whether such contract was entered into directly with his employer, through agency, or otherwise. Under this definition, "employment" does not include certain specified occupations some of which are: farm labor; domestic service; employment by governmental units on work relief projects; public officers; public employment on an annual salary basis; teaching; employment of individual covered by an unemployment compensation system established directly by act of Congress; employment by corporation, community chest, fund, foundation, or association organized and operated not for profit, but exclusively for educational, charitable, religious, scientific, or literary purposes, or for the prevention of cruelty to children or animals, no part of the net earnings of which inures to the benefit of any private shareholder or individual.[40]

4. "*Payroll*" *and* "*Wages*" include all wages, payable by employer to employe, and include the total salaries, wages, bonuses, commissions, vacation pay, tips, board, rent, housing, lodging, or other remunerations paid by employer to his officers and employes, all or a greater part of whose work in a given payroll period is performed in Wisconsin.[41]

The statute further provides that the actual (or reasonably estimated average) amount of any required or necessary expenses incurred by an individual on his job shall not be treated as wages.[42] Furthermore, the wages of all paid officers of an association or corporation are included within the definition, but reasonable directors' fees are excluded.[43]

Each employer shall be responsible for reporting to the Commission the wages paid by his contractors or subcontractors under him to their employes, unless the contractor or subcontractor is himself an employer subject to the law.[44]

Until December 31, 1936, payrolls shall not include any salary or wage of $250.00 or more payable by an employer to an employe for any given month and actually paid within fifteen days after the close of such month. This exclusion terminates with the month of December, 1936, unless the federal excise tax levied on employers of eight or more is finally adjudged invalid in which case the exclusion will again apply.[45]

Since the federal tax is based upon the *total payroll without any exclusions*, and for 1936 is 1% as against Wisconsin's 2%, the purpose of the Wisconsin law is two-fold: (1) to provide a means whereby industries will pay a Wisconsin tax more nearly equal to the federal tax during 1936; and (2) to provide an automatic means of increasing the Wisconsin revenues in 1937 at which time the federal tax is increased from 1% to 2%. As a concrete example: During 1936, Employer Doe has a total payroll of $31,200, having eight employes at the rate of $200 per month and two employes at the rate of $500 a month. The federal tax, levied upon the whole payroll at the rate of 1% equals

$312.00. The Wisconsin tax excludes all salaries of $250.00 per month or more, and for that reason the total payroll for Wisconsin tax purposes would be $19,200, and the Wisconsin tax at 2% would amount to $384.00. Thus for the year 1936, 90% of the federal tax could be offset by the Wisconsin tax, and Employer Doe would pay the federal government only $31.20. This obviously draws the Wisconsin tax closer to the federal rate during the first year, but since the federal tax is doubled the following year, the exclusion does not apply, thus leaving both taxes equal.

5. *"Partial Unemployment"*. Under the statutory definition, an employe is deemed partially unemployed "with reference to any given employer, in any week of employment by such employer for which he receives wages (from any and all employers, but exclusive of 'odd-job' earnings) equalling less than his weekly benefit rate from the given employer."[46]

6. *"Total Unemployment"*. An employe shall be deemed totally unemployed in any week in which he receives no wages other than "odd-job" earnings.[47]

EMPLOYERS' DUTIES AND OBLIGATIONS

1. *Administration Contribution.* Under the terms of the law an employer subject to the law must contribute to the administration fund at the rate of 2/10% of his payroll.[48] The Commission may prescribe lower rates of administrative contributions which may apply to all employers, or only to certain classifications of employers, as classified by condition of reserve fund, unemployment compensation experience, promptness in paying unemployment contributions and the like.[49] When federal funds become available to the state for administrative costs of administering the state law, the state administrative assessment may be decreased, or if the federal funds should be adequate, the state assessment may be entirely suspended.[50]

2. *Contribution to Unemployment Reserve Fund.* The employer must pay to the Industrial Commission an amount equal to 2% per annum of his defined payroll during the employer's first two years of contribution.[51] After that date, the employer shall continue to contribute at this rate (which is the now "standard rate") until he has been potentially liable for benefits throughout the most recently completed calendar year.[52]

(a) Whenever an employer has been "potentially" liable for benefits as stated above, but not earlier than at the close of 1937, and has a reserve percentage (viz., percentage of payroll represented by reserves on any Decemebr 31st) of less than 7½%, his contribution rate for the next year shall be not less than 2%. If benefits paid for the year were greater than the contributions to the account the rate is increased by multiples of ½%, the maximum rate not to exceed 3%[53] under the present standard rate of 2%, or 4% under the subsequent standard of 2.7%, after the calendar year 1938. The law further provides that the higher contribution rate imposed under the above circumstances may be reduced as low as the standard rate when the reserve percentage at the end of a year equals or exceeds 3%, and the lower rate, if applied, would yield contributions exceeding benefits paid within that year.[54]

(b) If at the close of 1936 or any subsequent year the employer has a reserve percentage between 7½% and 10%, his contribution rate for the next calendar year shall be 1%. When his reserve percentage is 10%, or more, no contribution shall be required for the next ensuing calendar year.[55]

(c) Since the federal Act permits the employer to offset against the federal tax up to 90% of the federal tax, such sums as he has paid into the state, the state law provides that any employer may, during the month of January of any year, but at no other time, pay into the Wisconsin fund an amount in excess of that required by law in order that he may bring his contributions to the state up to 90% of the federal tax if the ordinary contribution would not equal that amount.[56] The reason for this is obvious. It means that the difference between the employer's ordinary rate of contribution and 90% of the federal tax may thus be paid to the state where it will be credited to his reserve account (thus enabling the employer to build this account up to such percentage as will later permit reduction or even cessation in his contribution rate) instead of being paid as a tax to the federal government and going into the general funds of the federal government which are not earmarked for any specific purpose. In case an employer's contributions to the state fund for the calendar year 1936 should prove to be less than 90% of his federal excise tax returnable in January, 1937, such difference must be paid into the state funds prior to January 31, 1937.[57]

(d) For the calendar year 1938, the standard and also the maximum rate shall be 2.7%, and thereafter the standard rate shall continue at 2.7% and the maximum rate shall not exceed 4%. After 1938, an employer shall be permitted to pay contributions at a lower rate than the standard rate (2.7%) or his immediately preceding rate (which cannot vary from the standard rate until after 1938) only when benefits have been payable from the employer's reserve account throughout the preceding calendar year and the reserve account amounts to not less than five times the largest amount of benefits paid from such account within any one of the three preceding calendar years, providing also that the reserve percentage of such account equals or exceeds 7½%.[58]

3. *Audit of Payrolls, Defaults, Bankruptcy.* Provision is made by statute for collection by the state of defaulted contributions and for preferences in insolvency of claims arising out of benefits payable or contributions past due.[59] Provision is further made requiring every employer to "keep a true and accurate employment record of all his employes,

whether qualified and eligible to unemployment benefits or not, and of the hours worked for him by each and of the wages paid by him to each employe, and . . . (to) furnish to the commission upon demand a sworn statement of the same. Such record shall be open to inspection by the commission or its authorized representatives at any reasonable time."[60]

EMPLOYERS' ACCOUNT, LIABILITY, EMPLOYES' RIGHTS, ADMINISTRATION

1. Waiting Period for Total Unemployment Benefits. The law provides that an employe does not become eligible to receive total unemployment benefits until after a waiting period of an aggregate of three weeks in any consecutive fifty-two weeks. Those weeks next following the close of the employe's most recent week of employment shall be counted in such waiting period, whether or not the employe obtained other work in such weeks. There shall also be counted towards an employe's waiting period only those weeks occurring after the employer's benefit liability has accrued. However, no week during which the employe has become ineligible for benefits (as outlined below) shall be counted towards any such waiting period.[61]

2. Waiting Period for Partial Unemployment Benefits. An employe partially unemployed becomes eligible to receive benefits therefor only after a waiting period consisting of one week of partial unemployment for which the employer would otherwise be liable to pay benefits; not more than one such week shall be required of any employe with respect to any given employer in any fifty-two consecutive weeks.[62]

3. Employes' Ineligibility for Benefits, When Occurs. Benefits do not become payable until after July 1, 1936, or until after the employer has contributed to the Unemployment Reserve Fund for at least two years, whichever is the later.[63]

Briefly the law provides that no employe shall be deemed eligible for benefits for partial or total unemployment for any week under the following circumstances:

(a) If he were, with due notice called on by his employer, or by the employment office, to report for work actually available within such week and was physically unable to work or unavailable for such work.[64]

(b) If he has failed without good cause to register for work or give notice of total unemployment as required by the Industrial Commission.[65]

The law further provides that an employe shall not be eligible for any total unemployment benefits based on his past weeks of employment by the given employer under the following conditions:

1. If he has been discharged by the employer for misconduct connected with his employment; provided, moreover, that such employe shall be deemed ineligible for benefits (from other previous employer accounts) for the week in which such discharge occurred and for the three next following weeks.[66]

2. If he has left his employment voluntarily without good cause attributable to the employer; provided, moreover, that unless such employe has left to take other employment (whether or not subject to this chapter) he shall be deemed ineligible for benefits from other previous employer accounts, based on his past weeks of employment.[67]

3. If employe is customarily self-employed, for certain specified periods of time, and can at the termination of employment, return to his own self-employment.[68]

4. During such weeks as he worked solely as a caddy.[69]

5. If he is a student whose employment is solely within vacation periods or for not more than four hours of a regular full school day.[70]

6. If he is employed, while a student, by the educational institution which he is attending, or by a separate employer as a formal and accredited part of the regular curriculum.[71]

7. If regularly employed and paid by the employer at least ten of the past twelve calendar months, exclusively on a fixed monthly salary basis of $150 per month or more for each of the ten months.[72]

8. When employment has been lost because of a strike or where unemployment was due to an act of God, fire, act of civil or military authorities directly affecting place of employment.[73]

9. If he without good cause refuses to accept suitable employment when offered him, or has failed to apply for suitable employment.[74]

10. If he has not completed the probationary service period of either four weeks of employment, on at least twelve working days, or on a monthly salary basis for more than one month.[75]

4. *Modified Eligibility.* The law also provides that the Commission may by general rule or special order find that a given class of work cannot customarily and reasonably be performed by the employe working at full-time weekly hours, and after such finding, the eligibility for benefits for total unemployment by an employe in such work shall be specially determined in the light of the Commission's order and without application of the minimum weekly benefit rate. In such case, an employe would not be eligible for partial unemployment benefits.[76]

5. *Protection of Labor Standards.* The Wisconsin law has been amended to comply with the Federal Social Security Act which provides that "Compensation shall not be denied in such state to any otherwise eligible individual for refusing to accept new work under any of the following conditions: (a) If the position offered is vacant due directly to a strike, lockout, or other labor dispute; (b) if the wages, hours, or other conditions of the work offered are substantially less favorable to the individual than those prevailing for similar work in the locality; (c) if as a condition of being employed the individual would be required to join

a company union or to resign from or refrain from joining any bona fide labor organization."[77]

6. *Benefits Payable for Total Unemployment.* Benefits are payable only after twenty-four months after the employer has become liable for contribution. The weekly benefit is 50% of full-time weekly wage. The minimum weekly benefit is $5.00 and the maximum $10.00, when weekly wage is less than $25.00. Where the weekly wage is $25.00 and not more than $30.00, the maximum weekly benefit is $12.50. Where the weekly wage is $30.00 or more, the maximum weekly benefit is $15.00. Maximum weekly benefit rate shall not exceed highest weekly wages received from employer in any of fifty-two weeks preceding close of employment.[78]

Benefits are payable from the employer's account after the probationary service period, after the employer's benefit liability has accrued and within the fifty-two weeks preceding the close of the employe's most recent week of employment as follows: when the employe's weekly benefit is $10.00 or less the account is liable to pay benefits in the ratio of one week of benefit to each four weeks of employment; when the benefit rate is $12.50, the ratio is one week of benefits to each five weeks of employment; when the benefit rate is $15.00, one week of benefits to each six weeks of employment.[78a]

7. *Benefits Payable for Partial Unemployment.* An eligible employe shall be paid from his employer's account for each week of partial unemployment sufficient benefits so that his week's wages exclusive of "odd-job" earnings plus his benefits will equal his weekly benefit rate on the basis of total unemployment from the employer in question, and may even exceed such rate to avoid accounting complications.[79]

8. *"Odd-Job" Earnings.* In determining employe's partial or total unemployment, and his benefits for any given calendar week, there shall not be counted his "odd-job" earnings for such week as determined pursuant to Commission's rulings. The term "odd-job" shall in no case apply to work for an employer subject to this chapter.[80]

9. *Limits of Liability of Employer's Reserve Account.* It is important to note that no employer's account is liable at any time to pay benefits beyond its current resources, determined by adding to the account all contributions payable but unpaid.[81] In no case shall an employer's account remain or be liable to pay benefits to an employe for any unemployment occurring more than twenty-six weeks after the close of the employe's most recent week of employment by such employer.[82] Whenever the current resources of an employer's account at the close of any week (after deducting sums sufficient to cover pending claims) are less than the aggregate benefits apparently payable for unemployment occurring in such week, then all benefits payable for unemployment in such week shall be reduced and paid proportionately regardless of the minimum weekly benefit rate otherwise applicable, and such amounts shall be considered in full payment.[83]

10. *Liability of Successive Employers.* An employe employed by more than one employer within any fifty-two week period shall be entitled to unemployment benefits from the successive employers' account in inverse order of the successive employment, no previous employer being liable to pay benefits for any week in which the employe is employed by a subsequent employer subject to the law. Where an employe has worked for several employers in the same week the Commission shall allocate equitably to each such employer any benefit liability for partial or total unemployment of such employe.[84]

11. *Notification Required.* Any claimant of benefits must give notice of his unemployment at the public employment office in his district subject to rules to be prescribed by the Commission. The Commission may also require from an employer notification of partial or total unemployment under rules to be prescribed by it.[85]

12. *Automatic Benefit Payments.* Whenever an employe in any given week of employment by an employer is partially unemployed and eligible for benefits from such employer's account, the employer shall initiate the payment of such benefits, without awaiting a claim by the employe, consistently with any applicable Commission rules.[86]

13. *Administration.* Provision is made in various sections of the law for its administration by the Industrial Commission.[87] In view of the provisions of the Social Security Act funds contributed to the state whether under a voluntary plan or under the direct contribution required by the statute must be sent by the state to the U. S. Government,[88] and the state is permitted to make withdrawals only for benefits payable under the Wisconsin law.[89] Because of this phrasing of the Social Security Act, no refunds would be available in event of an employer no longer being subject to the Act. The federal Act also provides for federal aid for the administration of the state law.[90] No money has yet been appropriated for this purpose but such an appropriation will undoubtedly be forthcoming early in the 1936 session. When federal administration aid becomes available, the administration contributions now required by the state law may be entirely suspended, if the federal aid is adequate in this respect.[91]

GENERAL COMMENTS

1. *Hiring or Firing Employes before Benefit Liability Accrues.* Since employers becoming subject to the Act are not liable for benefit payments until after twenty-four months have passed from the date of their first becoming liable to make such contributions, "this means,—with respect to those Wisconsin employers whose contributions started July 1, 1934,—that benefit rights and liabilities will accrue from July 1, 1936, on, based entirely on work weeks and on unemployment occurring after

that date. (*An employer's hiring, employment, or dismissal of employes before July 1, 1936, will not create any subsequent benefit liability.*)"[92]

2. *Extent of Memorandum.* This memorandum is concerned solely with those employers who do not operate under a voluntary system previously approved as it would seem that since employers operating under voluntary plans must begin benefit payments immediately and are liable for the federal tax without offset, employers will prefer to be subject directly to the Wisconsin law rather than subject to a special plan. Since the federal Act permits only a 90% credit against the federal tax it is also to be noted that employers will be required at all times to pay at least 10% of the federal tax. In this connection it is important to note that employment of eight or more individuals during the calendar year 1935 does not subject any given employer to either the Wisconsin Unemployment Compensation Law or the Social Security Act. Such employment must occur in the calendar year 1936 or later and when such condition has been met, then the liability for contribution dates back to the first of that year.

There follows a copy of Bulletin No. 190 issued by the Unemployment Division of the Wisconsin Industrial Commission, dated 12/31/35. This contains instructions immediately essential and will be followed within a short time by another bulletin setting out the details required in your accounting records.

1. *PAYROLL "CUT-OFF", AT CLOSE OF 1935. Each employer's payroll records should show a complete and definite "cut-off" at the close of 1935.* All payments made for services performed in 1935 should be separated from payments made for services performed in 1936.

This requirement is made pursuant to the industrial commission's printed Rule 100, which reads in part as follows: ". . . Contributions . . . shall be computed . . . monthly . . . The payroll assignable to each monthly period shall be determined according to the customary accounting practice of the employer . . . *But every employer shall report his payroll on an accrual basis at the turn of each calendar year . . .*"

If certain payments (such as commissions or bonuses) for 1935 services are still undetermined, when the employer's contribution report for December, 1935, is filed with the industrial commission,—an additional report should later be filed for December, 1935, showing the additional amounts determined or paid for 1935 services.

This complete payroll cut-off at the close of 1935 is necessary for federal tax purposes,—since the new federal payroll tax which starts in 1936 will be based on wages payable with respect to employment occurring *within* the calendar year 1936.

2. *WISCONSIN CONTRIBUTION REPORTS, FOR 1936.* To enable employers to credit their Wisconsin contributions against the new federal payroll tax, the industrial commission plans minor changes in the monthly contribution "report-form" now being used by employers under the Wisconsin law. These changes will first apply to the report-form for January 1936,—which will be mailed to employers at the end of that month.

The industrial commission will probably be required to certify to federal tax authorities the amount of each employer's contributions duly paid in Wisconsin, with respect to such 1936 employment as will be subject to the federal payroll tax. Accordingly the commission will make such minimum changes in its monthly report-forms as are necessary for this purpose, with respect to 1936 employment.

3. *FEDERAL TAX REQUIREMENTS IN 1936.* Only one federal payroll tax applies in 1936. This tax is levied under Section 901 of the Social Security Act. The tax rate for 1936 is 1%. (Payment is not due until 1937.) Only *one-tenth* of this tax need be paid by those Wisconsin employers who are contributing under the amended Wisconsin law, as approved by the Social Security Board on November 27, 1935.

Aside from the yearly payroll cut-off already set forth above, Wisconsin employers need probably make no change in their payroll records,—so far as the federal payroll tax for 1936 is concerned. ((Note: The other federal payroll tax, which starts in 1937, may require some changes in payroll records. However, no official instructions on this matter are yet available.))

4. *EMPLOYMENT RECORDS IN WISCONSIN.* Benefits under the Wisconsin Unemployment Compensation Act (in all but a few instances) do not become payable until July 1, 1936, and will be based solely on those work-weeks occurring *after* that date. Accordingly there has been no necessity for employers to make any substantial change in their payroll and employment records, in connection with benefit liability under the Wisconsin law. (The industrial commission has never approved any set of "forms" for this general purpose, and has repeatedly advised against premature changes by employers,—prior to the time when full account can be taken of 1935 Wisconsin amendments and of federal tax requirements.)

Within the next few months the commission will issue instructions as to the information which each employer's records must show, for benefit purposes from July on. At that time the commission will doubtless require (so far as necessary) that each employer maintain his records on a *calendar week basis.* (The Wisconsin law, unlike the laws in several other states, does *not* base benefit rights on "days" of work, and therefore does *not* require "daily" employment records in connection with unemployment benefits.)

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81. Wis. s. 108.06 (4)
82. Wis. s. 108.06 (3).
83. Wis. s. 108.06 (4).
84. Wis. s. 108.07.
85. Wis. s. 108.08 (1), (2).
86. Ibid. (3).
87. Chapter 108, Wis. Stats., as amended in 1935.
88. SSA—s. 903 (a) (3).
89. Ibid. s. 903 (a) (4).
90. SSA—Title III.
91. ICB—#150, p. 13.
92. ICB—#150, p. 6.

Proceedings of January Council Meeting at Milwaukee; 1936 Budget Adopted

1. Call to Order

The Council of the State Medical Society of Wisconsin was called to order at the University Club, Milwaukee, at 9:15 A. M., Saturday, January 4, 1936, by Chairman Rogers.

2. Roll Call

The roll was called and the secretary reported that all members of the Council were present as follows: Councilors Rogers, Gleason, Duer, Pope, Cunningham, Butler, Blumenthal, Gavin, Dean, Lambert, Jegi, Johnson and Smith; President Carter; The President-elect; Past-president O'Leary; Treasurer Sleyster; Speaker Gunnar Gundersen, and the Secretary, Mr. Crownhart.

Others present by invitation of the Chairman were Dr. Eben J. Carey, Dean, Marquette University School of Medicine; Mr. George B. Larson, Assistant to the Secretary; Dr. James C. Sargent, Vice-speaker of the House; Dr. C. A. Harper, State Health Officer; Dr. J. Newton Sisk, representing the Board of Trustees of the Dane County Medical Society; Dr. Arnold S. Jackson, Chairman of the Special Committee of the Council on Goiter; Dr. A. E. Rector, Chairman, and Dr. Paul Fox, both of the Committee on Medical Economics.

3. Approval of Minutes

Upon motion of Pope-Blumenthal, the minutes of the last meetings of the Council as published in the December issue of the Wisconsin Medical Journal, were approved without correction.

4. Elections

The Secretary asked President Carter to preside during the election of a Chairman.

A. The Chairman. Moved by Smith-Pope that the Secretary cast the ballot of the Council for Dr. Arthur W. Rogers, Oconomowoc, to succeed himself as Chairman of the Council for the ensuing year. Carried unanimously.

The Chairman, Dr. Rogers, again presided.

B. The Secretary. Moved by Pope-Dean that the Chairman cast the ballot of the Council for Mr. J. G. Crownhart to succeed himself as Secretary of the Society and Council for the ensuing year. Carried unanimously.

C. The Treasurer. Moved By Smith-Duer that the Secretary cast the ballot of the Council for Dr. Rock Sleyster, Wauwatosa, to succeed himself as Treasurer of the Society and Council for the ensuing year. Carried unanimously.

5. Appointments of the Chairman

The Chair announced that the Executive Committee of the Council was composed by rule of the Chairman, the Secretary, the Treasurer and two Councilors. He pointed out that to facilitate frequent meetings it was desirable that appointees reside within a short distance of Milwaukee and secondly, that previous service on the Committee was of distinct value. He accordingly announced the reappointment of Councilors Blumenthal, Milwaukee, and Gavin, Fond du Lac, for terms expiring in January, 1937.

The Chair then announced that hold-over members of the Advisory Committee of the Council to the Auxiliary were the President and Secretary, ex officio, and Dr. Rogers (1937) and Dr. Pope (1938). To fill the expiring term of Dr. Rock Sleyster, he appointed Dr. F. Gregory Connell of Oshkosh whose term will expire in 1939.

6. Mail Ballot

It was moved by Gleason-Gavin that the Council confirm a mail ballot by which it was voted (9-3) that the Council withhold action upon a proposal of the Milwaukee Association of Commerce to invite the Interstate Postgraduate Medical Assembly to hold its 1936 meeting in Milwaukee, until such time as the Board of Directors of the Medical Society of Milwaukee County had acted favorably upon the identical proposal. Carried.

7. Report of the Secretary

The Secretary presented the following report:

To the Council:

First of all your Secretary transmits to the Council with pleasure the following communication from the office of the Woman's Auxiliary to the State Medical Society of Wisconsin:

The Woman's Auxiliary to the State Medical Society of Wisconsin wishes to extend its appreciation of the many kindnesses and favors extended them during the recent state convention in Milwaukee. The cooperation shown by the State Medical Society to the Woman's Auxiliary is most encouraging.

(Signed)

(Mrs.) Isabella S. Connell,
President.

(Mrs.) Minnie Gunther,
Secretary.

Membership

The membership of your Society on December 31, 1934 was 2,140. The membership of your Society on December 31, 1935, was 2,240. Attention is directed to the fact that this is the largest membership in the history of your Society.

Your Secretary also takes pleasure in reporting that in the course of the past twelve months he has received more letters from members complimenting the Society on its achievements in the joint interest of the profession and public than at any previous time. Such letters have been voluntary and in connection with no other correspondence. This is reported as an indication that the membership is keenly alive to the extent of the problems that now face the profession, to the accomplishments that have been made, and to the serious consequences that would have resulted had not the profession acted as is only possible through a cohesive society.

The Journal

Prior to the depression years the Wisconsin Medical Journal was self-supporting on the basis of advertising receipts alone. Due to the great loss in advertising revenue, the sum of $3,000 annually has been provided for the Journal through the budget in each of the past three years. During the past twelve months your Secretary has conducted a most active campaign for advertising at a cost of $754.67. Advertising revenue for the year (estimated) will be $6,257.73 as compared to $5,192.04 for the calendar year of 1934. During 1934 the Journal sustained a loss over and above the appropriation from the general fund of $264.04. In 1935, despite the cost of the advertising campaign, the Journal had a net income of $150.41. Your Secretary is anxious, with Council approval, to continue the advertising campaign throughout 1936, but this will be conducted at a materially lessened cost.

The Council will note that the appropriation from the general fund for 1936 is requested in the amount of $2,700, a reduction of $300 as compared to each of the past three years. It is hoped that the end of another calendar year will see the appropriation reduced to $2,000 or less and that within another two or three years the Journal again will be self-supporting.

Medical Relief

For the past three and a half years your State Society has made an outstanding accomplishment in securing free choice of physician throughout the state for those on relief rolls and an allowance for such medical attention which approximated cost of

service. To the best of your Secretary's knowledge Wisconsin is perhaps the only state in which free choice of physician operated throughout the state, in metropolitan as well as rural areas. While medical allowances were low, in the aggregate they reached large sums per year and provided physicians with cost of service for large population groups at a time when such allowance was vitally necessary to the membership.

On December 1st last the Federal Government announced its withdrawal from participation in direct relief. Henceforth participation of the Federal Government in relief, unless plans at Washington are changed radically, will be confined to providing work under the Wisconsin Works Progress Administration at the so-called security wages. The problem of direct relief again becomes a problem for the counties and state to finance and while presumably this should be possible of accomplishment in a satisfactory manner due to great decreases in the relief rolls reducing them substantially to the unemployables, actually this ideal of the Federal Government probably will not be realized. State funds will be exhausted soon after the first of the year, unless a special session of the legislature should be called to provide additional state financing.

A considerable number of the county boards have already considered this general subject matter and ordered severe retrenchment. Under Chapter 350, Laws of 1935, it is possible for a County Medical Society to enter into a contract with a County Board to provide medical care for the indigent. The legal services of the State Society have been made available to each County Medical Society that wishes to consider such a contract. The terms of the contract have been outlined and actual contracts will be drawn upon request.

Your Secretary points out, however, that unless large amounts of state funds are made available or unless the Federal Government again enters the direct relief picture, the problem of medical relief no longer can be handled from the state office but becomes in fact a matter for the consideration of each County Board and thus a wholly local problem which can only be met by action of the respective County Medical Societies. So long as Federal funds predominated in the relief picture, regulations providing for free choice of physician could be secured and enforced, through efforts of the state office at Madison. With the withdrawal of Federal funds this is no longer possible in any manner or through any means.

In conclusion your Secretary would point out that, according to the best estimates, members of your Society received over a million dollars a year during each of the last three and a half years as results of the efforts of their State Society. The accomplishment was distinctly and outstandingly in the public interest and yet could not have been made except through the State Society.

Finally, your Secretary calls attention to the fact that some counties have already ordered local relief officials to revert to the county physician system. This is plainly an indication that should advocates of a system of State Medicine succeed in the 1937 session of the legislature, such a system would lack even the beginnings of an adequate financing and would be ruinous alike to the progress of medicine and the protection of the people involved.

Crippled Children

At the last meeting of the Council the request of Mrs. Ingram of the State Department for the Care of Crippled Children for a special committee on this subject was granted. The Chairman of the Council appointed Doctors J. W. Powers, Milwaukee (representing orthopedics), A. T. Nadeau, Manitowoc, (representing general practitioners), Chester M. Kurtz, Madison, (representing cardiac specialists), H. Kent Tenney, Madison, (representing pediatricians) and the Secretary, to constitute such a committee. The committee, together with President Carter, has had several meetings both in Madison and Milwaukee and the Secretary wishes to report that great progress has been made and that should social security funds be made available for extension of effort in this field, it would appear that in large part such funds will be applied in a manner designed by the profession to accomplish most in the interest of the afflicted child.

W.P.A. Employability Examinations

Within the last few weeks your Secretary was asked by the Director of the Wisconsin Works Progress Administration to devise a form for a physical examination of those on Works Progress rolls whose appearance suggested to the foreman their inability to do the physical work assigned to them. Within forty-eight hours such form was designed with a suggested fee therefor and as result of telegraphic communications to all secretaries and component societies, the W. P. A. Administrator was furnished with a list divided by counties and alphabetically by towns and cities within each county, of those physicians who presumably would be willing and capable of making such examinations.

The Administrator now reports that authorities at Washington have cancelled their authority for granting such examinations despite the fact that the Federal Government will be liable under the U. S. Employees Compensation Funds for any traumatic injury traceable to this employment. The Wisconsin Administrator is greatly disturbed over the liability that the Government thus unnecessarily assumes and the cancellation of authority to proceed with such examinations. He hopes that authority to proceed with the examinations again may be secured. In passing, your Secretary would point out that this is but another evidence of how a system of bureaucratic control of medicine operates,—authorities at a central office tying the hands of a state administrator.

Secretaries' Conference

The annual conference of Secretaries of constituent State Medical Associations conducted by the American Medical Association, was held in Chicago for two days in November. The Society was officially represented by your Secretary (who was asked to present on the program the Wisconsin outline for evaluating proposed changes in forms of medical service), and by Dr. S. E. Gavin, President-elect. The President was unable to attend due to a conflicting meeting in another state. Problems of the profession were discussed in very considerable detail and the presentations and discussions largely will be presented through the medium of future issues of the Bulletin of the A. M. A.

Annual Meeting Program

The Secretary again has secured use of the Memorial Union Building at Madison in which to hold the 1936 meeting of the Society. Dates for the meeting have to be set to fit the schedule of the management of the building, and at a time that precedes the opening of the University year. Dates for the 1936 meeting have accordingly been determined as Wednesday, Thursday and Friday, September 9, 10, and 11. The House of Delegates will hold its first session on Tuesday evening, September 8th.

The Committee on Scientific Work has held a preliminary meeting and Dr. Gunnar Gundersen, La Crosse, Chairman of the Committee, has the preliminary outline for the meeting in accomplished form.

High School Debates

Over 200 high schools of Wisconsin and practically all of the colleges within the state have selected as their debate question this year the subject of State Medicine "at public expense." Sensing that forces representing propagandists for the affirmative were furnishing large amounts of material to the schools, your Society has cooperated with the Extension Division and officers of the Wisconsin Forensic Association in furnishing pamphlets presenting accurate data on this subject matter. Within the last twelve months upwards of 50,000 have been distributed from the office of your State Society, most of these in sets of six. Three of the pamphlets concerned have been purchased through orders and re-orders from the American Medical Association and three pertaining more exclusively to the Wisconsin situation have been printed at Madison. In addition a large number of requests have been received from Medical Societies and other official sources throughout the country and have been filled so far as was possible without incurring any considerable expense.

In order to make certain that each high school debating the question received the material of the State Society, a personal letter was addressed to the debate coach in each high school in Wisconsin, asking whether the national question was being debated in that school and, if so, how many sets of material he would like to have for the class. Sets of material have also been furnished to every public library in the state and in large numbers to rural discussion groups who are discussing this year, in many counties, the question "Who shall pay the doctor's bill?" The cost of purchase, printing, and distributing these pamphlets has been very considerable, but it was seemingly essential particularly in view of the large amount of unauthentic material and data which was being sent to students throughout the state. A lessened demand for material is anticipated for 1936 but an item will be found in the budget under the Committee on Medical Economics and in the opinion of the Secretary and the Executive Committee of the Council the full amount therein stipulated will be required.

Narcotic Law

An analysis of the new Uniform State Narcotic Act has been made by legal counsel of the Society and was published in the December issue of the American Medical Journal. The new law becomes effective on January 1st, and, while power has been granted to the State Board of Health to prescribe forms, contacts by the Secretary with the Board indicate that they will not require a duplication of those records already required under the Federal Narcotic Act.

Social Security Law

Legal counsel of the Society is preparing, with the cooperation of the Secretary, a careful analysis of the tax features of the new Federal Social Security Act as they apply and affect each physician. This analysis has required great study and will be published in the February issue of the Wisconsin Medical Journal. The material will be found to be of the utmost importance.

Income Tax Studies

The central office is now bringing to date the compilation of deductions and depreciations available to physicians under the Federal and State Income Tax Laws. This compilation also will be published in the February issue of the Wisconsin Medical Journal and, as on each previous occasion, will be found to contain information of dollars and cents value to every member.

Hygeia

The Wisconsin Auxiliary occupies the enviable position of leading among all State Auxiliaries of the nation in the securing of subscriptions to Hygeia, the journal of health published by the American Medical Association. In his visits about the state the Secretary has been impressed with the number of physicians who do not have this publication, particularly designed for the lay reader, on their reading tables. In cooperation with the American Medical Association, we published a special insert subscription blank in the December issue of the Wisconsin Medical Journal. The Councilors, in addressing component societies, are particularly

urged to stress the importance of each physician having Hygeia on his waiting room table. This affords the best opportunity for its introduction to the public and at no previous time has it been so essential to convey to the public the messages which are so ably portrayed in each issue of this publication.

By personal letter some 190 subscriptions were made the Christmas gift of the Society to legislators, teachers' colleges, public officials and others whose state position has to do with health efforts. This is a continuation of a procedure started several years ago.

Poor Relief Digest

Prior to relief participation under Federal rules and regulations, your Society had prepared, through legal counsel, an extensive digest of the state laws pertaining to any phase of medical relief for the indigent and near-indigent. With the cessation of Federal relief funds this digest, which has already run through five editions of 8000 copies, again becomes of importance. It is now being revised by legal counsel, and, assuming approval of the Council, will be re-published in February or March for the information of all members. Following the publication of each previous edition requests for many hundreds of copies were received from county officials, town supervisors, and like poor relief officials. It is anticipated that like requests will be received for the new edition and that it will be of great service to the membership in bringing to these lay relief officials an accurate understanding and interpretation of their legal duties under the state laws.

Committees on Coordination of Medical Services

The Council and members will recall that this Committee meets with the University authorities on four occasions each calendar year to discuss the relationship between the profession and public, and University services. This Committee continues its full activities and mention is made of it here that Councilors and officers may remind members throughout the state that suggestions and criticisms may be forwarded to the Secretary of their Society at any time for consideration of this Committee. The Committee has accomplished splendid work in the interest of harmonious relationships and procedures best designed to promote the public health.

Travel of the Secretary

As frequently as is possible the Secretary has been accepting invitations to speak before County Societies and District meetings. The tremendously increased work of the office, however, makes it impossible for him to accept as many invitations as he would like, particularly in view of the fact that if he were to attend each Society and each District Society just once a year he would have to be out of the office a third of the time. This is utterly impossible under present conditions wherein the average day's mail brings an ever-increasing number of letters from the membership, many of which require study and research before they can be answered. So far as is possible, however, the Secretary will continue his visits during 1936 and hopes that he may visit many component societies that he has not had the opportunity to visit for a year or more. Large numbers of invitations are received to address lay groups. Again, for lack of time and finances the Secretary has had to establish the rule that he could only leave the office to speak before groups representing a district of the state or a state association.

Medical Economics

On December 27th the Secretary invited to Madison a small group of representative physicians well distributed over the state who are practicing substantially on an individual basis. This group discussed with the Secretary problems involving the field of collections and, subsequent to the meeting, the Committee on Medical Economics plans to issue informative material through a bulletin to the entire membership.

The necessity for the Society's considering this subject matter in the interest of the profession and public has been evidenced during the depression years by a large number of physicians inquiring about the status of collection agencies. Unfortunately many of such requests are received after unpromising contracts have been signed. The purpose of the bulletin is not to discuss the late collection problem but will concern itself principally with what can be done in the proper manner to reduce that problem in each physician's office.

Study of Plans

The central office and the Committee on Medical Economics is continuing its active study of experiments elsewhere in the field of delivery of medical service. A request for an additional study will be before this Council meeting for your consideration, as well as the request for approval of inauguration of the plan as contemplated in the resolutions adopted in the last session of the House proposed by the Committee on Medical Economics.

Your secretary is most appreciative of the aid that is given him by the entire membership on his every call. Without such ready response the accomplishments that the Society has already made and its most serious undertakings for the future would be utterly impossible.

Respectively submitted,

J. G. Crownhart,

Secretary.

7. A. Resolution on Collection Agencies

Supplementing his report, the Secretary advised the Council in detail with respect to findings of legal counsel as to the liability of members who were dealing with collection agencies which were combined with other interests. The Secretary advised that members who signed certain specific contracts had probably, in the opinion of legal counsel, unwittingly laid themselves liable to certain legal action and com-

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mended to the consideration of the Council, a resolution on the subject. A general discussion followed after which it was moved by Cunningham-Pope that the resolution be adopted. Carried unanimously.

The Secretary was directed to communicate the resolution directly to the membership.

7. (Continued)

It was then moved by Gavin-Jegi that the report of the Secretary be accepted. Carried unanimously.

8. Report of the Treasurer

Dr. Rock Sleyster, Treasurer, presented the following report after which it was moved by Smith-Johnson that the report be accepted. Carried unanimously. The report follows:

TREASURER'S REPORT

State Medical Society of Wisconsin

As of December 31, 1935

	General Fund	*Medical Defense Fund*
Balance January 1, 1935	$ 574.79	$ 1,017.42
Receipts:		
Membership dues	$26,734.00	$ 1,992.00
Interest on investments	1,244.22	449.48
Rental of exhibit space	2,225.00	---------
Miscellaneous	30.91	---------
Beloit Water Gas & Elec. Bond—called	1,029.65	---------
North American Bonds—sold	---------	1,695.29
Dane County Poor Relief Bond —sold	1,025.00	---------
St. Joseph's Congregation Bond —sold	949.32	---------
City of Milwaukee School Bonds—matured	2,000.00	---------
Refund Check (Adele Hartman)	15.00	---------
Dinner Tickets Annual Meeting	580.00	---------
Wisconsin Hospital Association	150.00	---------
Total Receipts	$35,983.10	$ 4,136.77
Total	$36,557.89	$ 5,154.19
Disbursements:		
Expenses as authorized in 1935 budget	$36,553.35	---------
Robert R. Freeman, Attorney	---------	$ 1,544.19
Ronald A. Dreschler, Attorney	---------	671.54
Bonds purchased	---------	1,970.00
Total Disbursements	$36,553.35	$ 4,185.73
Cash on Deposit as of December 31, 1935	$ 4.54	$ 968.46

Summary of Funds

General Fund:		
Bank Balance December 31, 1935	$ 4.54	
Investment Securities	$20,000.00*	
	$20,004.54	
Medical Defense Fund:		
Bank Balance Dec. 31, 1935		$ 968.46
Investment Securities		$11,000.00
		$11,968.46

Investment Bonds

	Interest Rate	*Maturity*	*Face Value*
General Fund:			
N. Y. State Elec. & Gas. Corp.	4½%	3–1–80	$1,000.00
Wis. Pwr., Light & Heat	5 %	6–1–46	1,000.00
Canadian National Railway	5 %	10–1–69	2,000.00
Milwaukee Gas Light Co.	4½%	3–1–67	2,000.00
T.M.E.R. & L. Co.	5 %	6–1–61	2,000.00
Wis. Public Service Co.	5 %	1–1–42	3,000.00
American Tel. & Tel. Co.	4 %	3–1–36	4,000.00
Northern States Power Co.	5 %	4–1–41	4,000.00
City of Milwaukee School	4½%	1–1–37	1,000.00
Total			$20,000.00
Milwaukee County Sewer	4½%	3–18–44	$1,000.00
Wisconsin Gas & Elec. Co.	5 %	6–1–52	1,000.00
Pacific Tel. & Tel. Co.	5 %	1–2–37	1,000.00
Bell Tel. of Canada	5 %	3–1–55	2,000.00
Commonwealth Edison	4½%	7–1–57	2,000.00
U. S. Treasury Bonds	3¼%	1944–46	2,000.00
So. California Edison Co.	3¾%	5–1–60	2,000.00
Total			$11,000.00

8. (Continued)

Discussion followed on the very favorable record of the Medical Defense fund of the Society and its service to members. The Secretary was asked to advise Councilors in more detail on features of the Fund that each might present this favorable situation before their respective county societies during the ensuing year.

9. The Budget

The Secretary presented the following report from the Executive Committee of the Council:

The Executive Committee of the Society met in Milwaukee on Friday, December 13th, for preliminary consideration of many subjects including the 1936 budget.

It will be recalled that upon vote of the Council the sum of $5,000 from the $25,000 surplus of the Society was voted, in addition to the 1935 budget, in order to meet the emergencies that arose during the year, particularly occasioned by the nine months' session of the Legislature, and the increasing importance of meeting questions in the field of compulsory sickness insurance, culminating with the selection of this topic as the debate question in upwards of two hundred high schools in Wisconsin this

* During the year there was sold the sum of $5,000.00 in Bonds out of the Investment Account of the General Fund.

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late fall and winter. The entire amount set aside by the Council from the surplus will have been used by January 1st.

Upon recommendation of the President, retiring President, Secretary and Committee on Resolutions, the dues of the Society were increased from $12.00 to $15.00 for the calendar year of 1936.

During 1935 the membership of the Society has risen from 2,140 to an estimated 2,240 (2,229 as this is dictated). The vote for the increase in dues was a unanimous one and there has been no discussion since that time which has come to the attention of the Secretary indicating any general dissatisfaction with the action of the House. In estimating our income, however, it would seem wise to assume that we might have a loss in membership of as many as 115, although losses in years past when dues were increased (including the year when the dues were raised from $10.00 to $15.00) never exceeded 50.

Based on 2,125 members, (allowing for 115 loss) the income from dues for 1936 would be $31,875.00. To this may be added roughly $750.00 representing interest on the remaining $20,000.00 general surplus invested in bonds and $150.00 which represents the compensation paid to the Secretary by the Wisconsin Hospital Association for his acting as Secretary of that Association, and which compensation is turned over to the General Fund of the Society. This would give us a total estimated income of $32,775.00.

Following is listed recommendations of the Executive Committee as to the 1936 budget with 1935 figures given in the appropriate column:

Salaries	*1935*	*1936*
1. J. G. Crownhart	$7,800	$ 7,800
2. G. B. Larson	1,800	2,250
3. Ellinore B. Ehrman	1,560	1,560
4. Florence Ripley	1,560	1,600
5. Alice Padden	900	990
6. Bernice Satrang	900	990
7. Extra Help	600	600
8. G. H. Schroeder	300	300
		$16,090
9. Rent	900	840
10. Office	3,000	3,000
11. Press	500	450
12. Travel	900	1,200
13. Journal	3,000	2,700
14. Meeting	1,800	1,800
15. Hygeia	270	225
16. A.M.A. Delegates	250	100
17. Legal	600	600
18. Legal—Insanity	-----	250
19. Legal—Hospitals	-----	150
20. Committee on Public Policy	1,800	600
21. President	-----	500
22. Council and Committees	1,200	1,200
23. Insurance—J. G. Crownhart	300	280
24. Sickness Insurance		
5 Committee meetings—$100		
Publication of own literature 200		
Purchase—American Medical Association literature and mailing 600		900
		$30,885

The budget as suggested permits a leeway between budgeted expense and estimated income of $1,890.

Brief Explanation of Certain Budget Items

1. Mr. Crownhart as Secretary receives $1,200 from the Wisconsin Medical Journal so that his total compensation is $9,000.

2. Mr. George B. Larson was secured to assist in the legislative emergency. Subsequently he has assumed the duties of Mrs. Ruth Naset, resigned. At the time he was secured by the Society he was Assistant in Minnesota at a salary of $175.00 a month. His Wisconsin salary has been $150.00 a month. He is efficient and he has developed fast, and the Executive Committee recommends his retainment as Assistant Secretary at a salary of $175 a month for the first six months of 1936 and $200.00 a month after July 1st. Mr. Larson is married.

4. Miss Ripley is now in her eleventh year of service with the Society and the Executive Committee feels that length of service should be recognized. An increase in salary amounting to $40.00 for the year is therefore recommended.

5 and 6. Miss Padden and Miss Satrang are office assistants who are working for $75.00 a month. This salary is merely a starting wage during a period of probation. The Secretary believes, and the Executive Committee recommends, that salary levels in Madison in general indicate that they should receive $80.00 during the first six months of the new year and $85.00 a month after July 1st next.

12. During the legislative session the Secretary of necessity had to stay very closely to Madison. An increase in travel expense for the Secretary and Assistant of $300 seems indicated for 1936.

13. Due to the loss of advertising the Journal has been running an annual deficit of $3,000. We are now engaged in a very intensive campaign to increase our advertising income. This has been partially successful to date and permits of a $300 deduction for 1936. If a further deduction is possible it will be made.

16. Last year the expense of the A.M.A. delegates was larger due to the fact that they had to go to Atlantic City. This year the meeting is to be in Kansas City.

18. The House of Delegates, in order to create a Special Committee to study the laws relating to the commitment of the insane, has recommended an appropriation of $500 to complete the Committee's work by the end of the 1937 session of the Legislature. $250 is proposed for expenditure in 1936. This will largely be used for the employment of legal counsel who will have to make a most careful analysis of the present laws in order that the Committee may do any constructive work.

19. Dr. Carter advocates that legal study of the question of hospital licensure precede study by the special committee authorized by the 1935 House of Delegates.

21. The House of Delegates recommended to the Council that they set aside the sum of $500 annually

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to cover the actual travel expense of the President in his official trips and other official expense such as long distance.

9. (Continued)

The Secretary and assistant retired from the room during the discussion of the salaries. Each item of the budget was discussed in general conference in which all participated. It was then moved by Cunningham-Duer that the recommendation of the Executive Committee be adopted as constituting the 1936 budget. Carried unanimously. (See items 10 and 12 for subsequent additions to the budget.)

10. Goiter Committee

Dr. Arnold S. Jackson, Chairman of the Special Committee of the Council on Goiter, then presented the following report:

To the Council:

1. A survey of 1,600 high school children in Milwaukee, Madison and Fond du Lac indicates that a high percentage of children of this age in Wisconsin either have goiter or some evidence of thyroid disturbance. Based on an estimate of half a million school children, one out of every five affected, would mean 100,000 children showing some sign of an abnormal thyroid.

2. While this estimate may seem startling to those not especially interested in this subject it is in fact lower than estimates made by many surrounding states by state and government surveys where the percentage of goiter in children has been found to run as high as 40%—70%.

3. Questionnaire sent to the secretaries of the component county societies indicates a lack of unanimity among the profession of the state as regards the methods of dealing with this problem.

4. Of the 552,312 school children in the state, the Committee estimates that not over 5% or 27,615 children are at present receiving adequate preventive treatment.

5. In answer to the questionnaire is the treatment administered under the supervision of the medical profession, but 12 counties replied that it was. In many instances this important medical problem was left to the jurisdiction of the county nurse, the local or the State Board of Health. It seems to me that here is a duty that our society cannot neglect—either it should take over the entire supervision of this problem, or it should admit its inability or lack of leadership and should turn over the problem to the State Board of Health or lay supervision. We cannot afford any longer to assume an attitude of neglect or a policy of let George do it. Our inaction in the past has paved the way for state medicine to make deep inroads into our profession. Are we going to be satisfied with having county nurses determine whether or not our children have goiters and what kind of treatment they are to receive? If so, we had better admit our failure to handle this problem at once and ask the state to take it over for us and do it right.

6. We can perhaps very simply and quickly solve this problem by requesting the state to officially recognize and advise the use of iodized salt as has Michigan. Time does not permit of a detailed discussion of this question here but I refer those who are interested to the paper I will present at the scientific session. Suffice to say that for the present at least the committee does not favor the state-wide adoption of iodized salt because of certain dangers and objections to its use.

7. There have been some who have felt that goiter among children has been decreasing in Wisconsin. This is very probably true in certain localities where the people have become goiter-minded and have seen individually that their children have been getting some form of iodine. The old adage should be borne in mind, however, that "an ounce of prevention is worth a pound of cure", and that if we are to prevent goiter in Wisconsin as well as its more serious sequelae cretinism, feeble-mindedness, deaf-mutism, idiocy and merely backward children, we must see to it that more than 5% of our children receive adequate preventive treatment. That goiter can be absolutely prevented in children by the use of iodine I am convinced by observations based on a study of 1000 children over a period of 12 years.

8. The question of the cost of preventive treatment is important. At present this method is being handled in various ways, by the county, by the school board direct, or by the parents.

9. In no two counties is iodine being administered by the same method and the preparations mostly differ as do the dosages.

10. If the Council approves of the preliminary work of this committee and recommends that it continue to function, the following plan is in contemplation:

To better acquaint the profession through the component county societies of the problem of goiter prevention.

To standardize the mode of prevention as regards dosage, preparation, etc.

To carry on an educational campaign of the public on the need for goiter prevention through the county medical societies.

To request each County Medical Society to devote the March program to the subject of goiter with particular emphasis to be laid on the question of goiter prevention.

To interest the various school boards and county supervisors in this problem through the same channels.

To cooperate with the various local and State Board of Health officials in working out a plan whereby at least 90% rather than 5% of the children of the state will be given preventive treatment for goiter.

Respectfully submitted,

ARNOLD S. JACKSON,
Chairman,
For the Committee.

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

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WANTED—Eye, ear, nose and throat specialist; must be well trained; excellent opening; locum tenens for about one year; possible permanent connection; well established practice; Wisconsin city; leaving for further study abroad; write immediately all information. Address No. 992 in care of the Journal. NDJ

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WANTED—Young unmarried man, recent graduate, Protestant, who wants good, general practice experience as assistant to established practitioner. $150. Address No. 10 in care of the Journal.

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10. (Continued)

After general discussion, it was moved by Smith-Johnson that the special committee be continued for one year with an appropriation of from $100 to $300. Carried unanimously. It was moved by Dean-Gavin that the work of the committee in 1936 be limited to effort within the profession and that a program of lay education be not undertaken at this time. Carried unanimously. It was moved by Pope-Smith that the Chairman of the Council add to the Committee a member of the State Board of Health. Carried unanimously. The Chair announced the appointment of Dr. C. A. Harper, state health officer.

11. Study of Plan

For several years a special committee of the Medical Society of Milwaukee County has been studying in great detail and with great sacrifice of time, various proposals and experiments contemplating eventual action in the field of furnishing additional medical care to people in low income groups and to assist in meeting the so-called catastrophic costs of illness for that group which incurs such costs each year.

The President of the Medical Society of Milwaukee County suggested to your Secretary that there are certain features of a plan now operating at Washington, D. C., which seemingly deserve the most serious consideration. The suggestion was made that the State Society might well finance the expense of Mr. Wiprud, Secretary of the Medical Society of Milwaukee County, in visiting the city of Washington and remaining there several days for a detailed study of this plan.

The Executive Committee of the Council considered this matter in great detail and recommends to the Council that the Secretary of the State Society visit Washington for the purpose of study of the plan there operating, and that he be authorized to take with him at the expense of the State Society a representative or officer of the Medical Society of Milwaukee County. The total expense thus incurred would be somewhere within the limits of $300.00 to $400.00.

After discussion, it was moved by Duer-Pope that the recommendation of the Executive Committee be adopted and the appropriation authorized. Carried unanimously.

12. Assistant Secretary

Upon request of the Secretary, it was moved by Blumenthal-Butler that Mr. George B. Larson, now assistant to the Secretary, be designated as Assistant Secretary and that he be granted powers coincident with those of the Secretary in the signing of checks, making remittances to the Treasurer and disbursements for the Journal. Carried unanimously.

13. Lay Issue

The Secretary reported that it might seem advisable to publish a so-called "lay issue" of the Journal in the early fall as a means of lay education in the field of the progress of medical science. General discussion was had.

14. Auxiliary Journal

The Secretary asked for authority to issue a separate bulletin for the Auxiliary if it was found feasible and could be made self-sustaining as to finances. Following a general discussion, it was moved by Gleason-Cunningham that authority for such a publication under the conditions mentioned be granted. Carried unanimously.

15. Dr. Tompach

It was moved by Pope-Smith that because of disabling illness preventing further active practice, the Society henceforth remit the state dues of Dr. Emil L. Tompach of Racine. Carried unanimously.

16. Postgraduate Education

The Chairman reminded the Council that following the presentation of Dean Middleton in September, a special committee had been appointed to consider this subject matter consisting of Drs. Smith, Gavin, Sleyster, and the Chairman and Secretary, ex officio. The Chairman then called for the report of the committee, which follows:

To the Council:

Members of the Council will recall that at the time the Constitution of the State Society was last revised provision was made for a Committee on Scientific Work which would consist of three members, each for a term of three years, and one appointed each year. It was the thought of the framers of the revised Constitution that this type of committee, appointed by the President of the Society, would provide an integrated scientific program for the Annual Meetings inasmuch as the two immediately retiring program chairmen would serve on the committee with the new one. Secondly, it was thought that this committee would have charge of the scientific postgraduate work of the Society as well as preparing the Annual Meeting programs.

As the Council keenly appreciates, there has been an expression of not complete satisfaction with this new arrangement, for as it worked out in fact, the new member of the committee appointed each year became the program chairman and outside of one or two meetings with the other members, the matter of framing the program was still largely in the hands of the chairman. Secondly, while the Committee on Scientific Work did prepare and send out several bulletins listing members of the Society who were capable and willing to address County Societies on various topics, this, too, fell considerably short of that which the Council had anticipated.

The sentiment for some revision was expressed at the January, 1935, meeting of the Council and was rather brought to a head by the proposal of Dean Middleton and his associates at the September Council meeting which resulted in the appointment of this particular committee.

Your committee, consisting of Doctors Joseph F. Smith, Wausau, Chairman; Stephen E. Gavin, Fond du Lac; Rock Sleyster, Wauwatosa, and in an ex officio capacity the Chairman of the Council and the Secretary of the Society, has held two meetings. At

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the first meeting the entire morning was devoted to a discussion not alone of the University proposal, but more particularly of the broad needs of the Society. A second meeting was held on Saturday morning, December 28th, at which Dean Middleton of the University of Wisconsin was our guest. As result of these two meetings the committee commends for your consideration the following proposal, which not only meets with the approval of the committee, but is as well satisfactory to Dean Middleton:

WHEREAS, It is the belief of the Council that the scientific work of the Society both in the field of programs for state and district meetings and for postgraduate education in the County Medical Societies, could be materially enhanced, and

WHEREAS, The Dean of the University of Wisconsin and his associates have presented a comprehensive plan for postgraduate education, using members of the staff of the University of Wisconsin Medical School at the expense of the staff members, and

WHEREAS, After two committee sessions it is the belief of the committee that the value of the postgraduate work thus proposed could be still further strengthened by including available material from within the membership of the Society and the faculty of the Medical School of Marquette University as was suggested by Dean Middleton of the University of Wisconsin at the September Council meeting;

Therefore, be it resolved, That the Council of the State Medical Society of Wisconsin hereby creates a "Council on Scientific Work". Said Council, appointed initially by the Chairman of the Council of the State Society, shall be composed of five members whose terms initially shall be for a period of one, two, three, four and five years respectively. Thereafter one member shall be elected each year by the Council of the State Society from a list of three submitted to the Council by the Council on Scientific Work. Initially said Council on Scientific Work shall include the Deans of the Medical School of the University of Wisconsin and Marquette University and at all times shall have a representative of the faculty of each school on the committee.

Said Council on Scientific Work initially shall be charged with the duty of amplifying a postgraduate plan submitted by the University of Wisconsin to include all available material in the state, and with the devising and submitting to the Council for approval any other plans looking towards furtherance of postgraduate work in this state.

It is the further recommendation of the Council to the 1936 House of Delegates of the Society that the House adopt an amendment to the By-Laws substituting this Council on Scientific Work for the present Committee on Scientific Work.

Part II

WHEREAS, Dean Middleton and associates in the University of Wisconsin Medical School Staff have expressed their willingness to contribute short therapeutic and clinical notes to the Wisconsin Medical Journal;

Therefore be it resolved, That the Council of the State Medical Society endorse to the Editorial Board the creation of one or two pages of each issue of the Journal under the heading of "Clinical Notes" or other acceptable heading for the publication of short articles of particular practical application. Further, that the Council recommend to the Editorial Board the appointment of an appropriate editorial staff for those pages, which pages shall be open to appropriate contributions by any member of the State Society, with the provision that no remedy or pharmaceutical be described therein which has not been accepted for "New and Nonofficial Remedies" by the Council or Pharmacy and Chemistry of the American Medical Association.

Respectfully submitted,

JOSEPH F. SMITH,
Chairman,
STEPHEN E. GAVIN,
ROCK SLEYSTER,
J. G. CROWNHART,
Secretary.

16. (Continued)

It was moved by Smith-Sleyster, that Part I of the Committee recommendations be adopted. Carried unanimously. It was moved by Blumenthal-Pope that Part II of the Committee recommendations be adopted. Carried unanimously. The Chairman announced that after consultation with Deans Middleton and Carey he would make the initial appointments to the Council on Scientific Work as follows: Dr. W. S. Middleton, Madison, Chairman, (1939); Dr. James A. Evans, La Crosse, (1940); Dr. Eben J. Carey, Milwaukee, (1941); Dr. H. A. Sincock, Superior, (1938), and Dr. George W. Krahn, Oconto Falls (1938).

17. Dane County Plan

One hour was granted to Dr. J. Newton Sisk, Madison, representing the Dane County Medical Society, who sought approval of several procedures falling under Chapter 350, Laws of 1935. A very general discussion ensued following the presentation, after which the following actions were taken: It was moved by Cunningham-Smith that the Executive Committee of the Council investigate more fully the plans proposed by the Dane County Medical Society and report its recommendations thereon to a special session of the Council. Carried unanimously.

It was moved by Duer-Smith that so much of the Dane County proposals which dealt with means for providing care for the indigent, and other plans for care of the indigent in other counties falling under Chapter 350, Laws of 1935, be referred to the Executive Committee with power of approval in name of the Society or power to refer to the Council in event of serious question. Carried unanimously.

18. Lectures on Organized Medicine

The Executive Committee commended for adoption by the Council a resolution similar in wording to one adopted by the Ohio State Medical Association. It was moved by Blumenthal-Butler that the following resolution be adopted:

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WHEREAS, It has been noted with disappointment that some of the graduates of medical schools and colleges in recent years apparently are unfamiliar with the objectives and activities of organized medicine and lack a clear understanding of the benefits to be derived through membership in local, state and national medical societies;

Be it resolved, By the Council of the State Medical Society of Wisconsin (Jan. 4, 1936) that the administrative officials of all accredited American medical colleges be respectfully requested to provide instruction for senior students on the activities, services, and benefits of organized medicine.

Be it resolved, That a copy of this resolution be transmitted to the Dean of each of the accredited medical colleges of America, the Council on Medical Education and Hospitals and the Board of Trustees of the American Medical Association, and the Secretary of each constituent State Medical Society.

Carried unanimously.

19. Miscellaneous Business

Dr. Gleason discussed the question of district meetings and their programs. Dr. Butler discussed the subject of the position of the retiring President on the Council. Dr. Harper stated that under the new state narcotic act no new forms would be required of Wisconsin physicians in addition to the record required by the Federal government.

20. Social Security Program Committee

Dr. Harper, state health officer, discussed the procedure in Wisconsin under the health provisions of the Social Security Act. He requested the appointment of a special committee to confer with the State Board of Health in the matter of formulating and approving specific plans. It was moved by Butler–Jegi that the Chair be authorized to appoint a Committee of five for the purposes outlined. Carried unanimously. The Chair announced the appointment of the following: Dr. Joseph Smith, Wausau, Chairman, representing surgery; Dr. A. H. Lahmann, Milwaukee, representing obstetrics; Dr. A. B. Schwartz, Milwaukee, representing pediatrics; Dr. Guy W. Carlson, Appleton, representing internal medicine, and Dr. M. O. Boudry, Fond du Lac, representing preventive medicine.

21. Adjournment

There being no further business, the Council adjourned to call of the Chairman, at 4:45 P. M.

Approved: J. G. CROWNHART,
A. W. ROGERS, M. D., *Secretary.*
Chairman.

APPENDICITIS

(Continued from page 111)

ways the result of obstruction which prevents its contents emptying into the gut; second, interval cases and acute cases operated soon after the onset, before the appendix has ruptured, or the bacteria become disseminated into and through the tissues, are practically free from danger; third, pus cases are full of peril, and complications are many, and may be long delayed—these are the causes of many fatalities; fourth, the time for operation in acute cases is when the diagnosis is made and the patient can be gotten into a proper place for such operation, in cases where not more than thirty-six or forty-eight hours have elapsed since the onset; fifth, after said time has elapsed, the time of operation must be determined by the condition of the patient, and the experience and judgment of the physician in each case, but, as a rule, the best interests of the patient will be secured by waiting until nature has fortified herself by increasing the number of leucocytes and forming protecting adhesions,—in other words, has walled off the abscess; the danger period can be said to be between the second and tenth days of the disease; sixth, some cases commonly called the fulminating type will make greater progress in thirty-six hours than other mild types will in a number of days; seventh, the Rehfuss tube is a life saver in many severe abdominal conditions both before and after operation; eighth, physic should never be given when there is a suspicion of appendicitis.

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and eat your apple on the way to school"

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BREAKFAST, which should form an important foundation for the growing child's eager activities, frequently is a mere snack, hurriedly gulped, so that many a child goes to school half-starved. How can a hungry child learn his lessons?

In behalf of tired mothers, it must be said that the long cooking of ordinary cereals is a drudgery, especially if there also be smaller children who break her rest during the night and clamor for attention before dawn. In most cases, the older members of the family lose out at breakfast time not because the mother is lazy or inconsiderate, but simply because she is exhausted and requires extra rest.

A happy solution of the breakfast problem, one that may even hold the home together during such troublous times, who knows, is PABLUM.

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The Story of MEAD'S OLEUM PERCOMORPHUM

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OLEUM PERCOMORPHUM, or Percomorph Liver Oil, is the achievement of an intensive, 10-year investigation conducted in the research laboratories of Mead Johnson & Company to find a natural oil more potent in vitamins A and D than cod liver oil and less expensive to the patient.

The U. S. Pharmacopoeia (IX, 1916, and X, 1925) recognized cod liver oil as the oil from the livers of fishes of the family *Gadidae*. There being some 50 species in this family, in addition to the type species, *Gadus Morrhua*, our first studies were directed at the examination of the more important species classed as cod. It occurred to us that somewhere in nature there might exist a species, or a family, or an order of fish, the liver oil of which would make possible a mixture comparable with Oleum Morrhuae but higher in vitamin potency.

The study was then directed to other species. By 1927 we had quantitatively compared the antiricketic value of oils from 15 species of fish and 11 other oils and fats. This was the most extensive survey of vitamin D sources reported up to that time. Outstanding in this list was puffer fish liver oil with a vitamin potency 15 times that of cod liver oil. Puffer fish were not available in commercial amounts, but the fact that one species of fish yielded so high a vitamin store provided great stimulus to investigators.

We discovered that the potency of fish liver oils increases with the leanness of the livers. With this revelation, we began a survey of all available commercial fish, as well as of rarer species. Collectors were sent to distant continents and to the islands of the Pacific and Atlantic oceans. From ports which never before knew cold storage we arranged to obtain refrigerated livers for our experiments. This ichthyological survey was interrupted (1928) at the time we introduced activated ergosterol.

In 1929 the Norwegian investigator, Schmidt-Nielsen, reported halibut liver oil to be superior to cod in vitamin A. Upon investigating, we felt then, as we do now, that while halibut liver oil marked a distinct advance it left much to be desired since it was perforce an expensive source of vitamin D. Hence it came to be used chiefly to supply vitamin A as a vehicle for viosterol.

Continuing the search for fish liver oils, by 1934 our laboratory staff had made thousands of bioassays of oils from more than 100 species to determine their vitamin characteristics. The results, reported in scientific journals in January and April 1935, were the culmination of a search literally of the seven seas.

With cumulative data on more than 100 species, it became evident that the fish belonging to the order known as *Percomorphi* differ from others in possessing, almost without exception, phenomenal concentrations of vitamins A and D. Thus we find liver oils which contain 50, 100, 500, and even 1,000 times as much vitamin A or vitamin D as average cod liver oil!

Percomorph liver oils are seldom equally rich in both vitamins. By skilful blending of the A-rich oils with the D-rich oils, a mixture is obtained which is about 200 times richer than cod liver oil in both vitamins A and D. As this concentration is so great that an ordinary dose of the oil could not be conveniently measured, we dilute the percomorph oil with approximately one volume of refined cod liver oil.

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Just as Oleum Morrhuae is a mixture of the liver oils of various cod species (cf. U.S.P. XI, 1935, p. 261) so Mead's Oleum Percomorphum is a mixture of the liver oils of various percomorph species.** The significant difference is that the improved product is 100 times as potent* in both vitamins A and D.

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*U.S.P. XI Minimum Standard.
**Principally *Xiphias gladius, Pneumatophorus diego, Thunnus thynnus, Stereolepis gigas*, and closely allied species.

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Volume XXXV
Number 3

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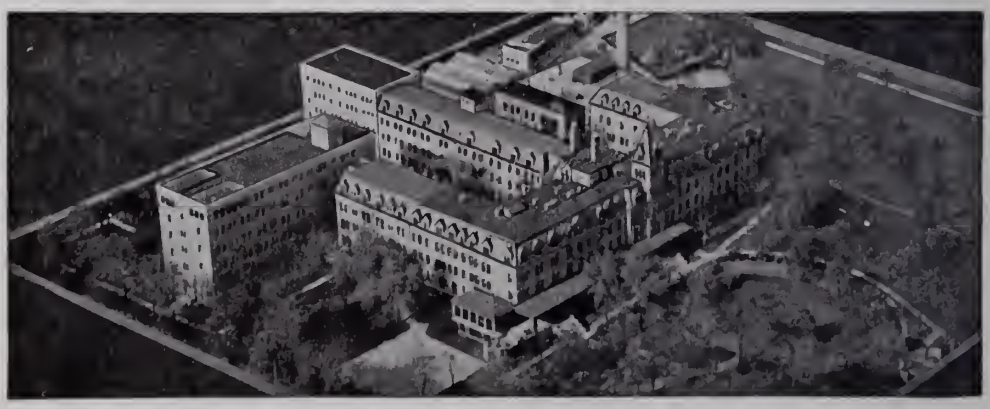

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By the Iodostarine Tablet method iodine is administered only to those who need it, not indiscriminately to everybody, and *prevention* of simple goiter is carried out in children without possible complication to adolescent or adult cases requiring *treatment;* the dosage is accurately controlled; the iodine is in organic form which does not irritate the stomach. Lastly, and of vital importance if prevention campaigns are to succeed, Iodostarine Chocolate Tablets are so pleasing to the taste that boys and girls LIKE to take them.

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REFERENCES:

Kugelmass, Clinical Nutrition in Infancy and Childhood, (Lippincott).
Marriott, Infant Nutrition, (Mosby).
McLean & Fales, Scientific Feeding in Infancy, (Lea & Febiger).

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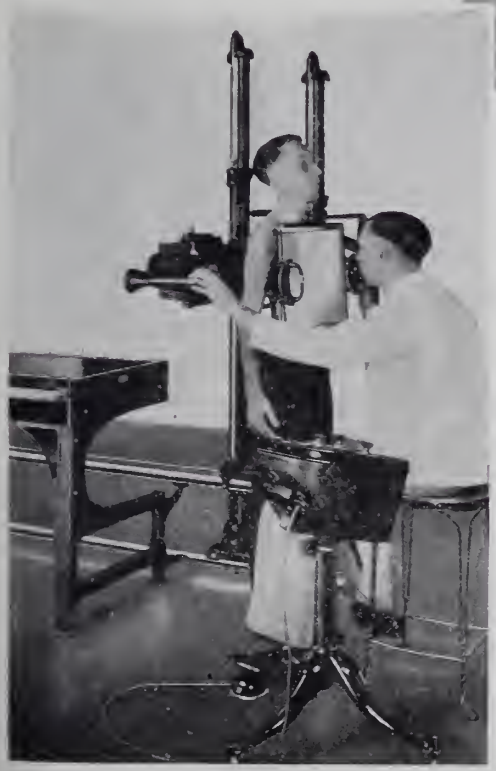

This is the "DRF" Unit, a combination of the Model "D" with an x-ray table for radiographic and fluoroscopic diagnosis. Here the tube head has been shifted along the floor rails to the foot of the table, for vertical fluoroscopy.

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CANNED FOODS AND THE PUBLIC HEALTH

II. Iron and Tin Salts

• The question is sometimes raised as to whether the metallic salts which canned foods may acquire from contact with tin containers are objectionable from the standpoint of public health. We are glad to present the facts in answer to this question.

The modern "sanitary style" can is manufactured from "tin plate". As the name implies, tin plate is made by plating or coating thin steel sheets with pure tin. This tin coating cannot be made absolutely continuous; under the microscope, minute areas can be noted in which the steel base is exposed.

Foods packed in plain or unenameled cans are, therefore, exposed to iron and tin surfaces. In enameled cans, foods are mainly in contact with inert lacquers baked onto the tin plate at high temperatures. However, because of minute abrasions in the enamel covering, unavoidably introduced during fabrication of the can, foods in enameled cans may also have limited contacts with iron and tin surfaces.

It is common knowledge that canned foods may acquire small amounts of these metals from contact with their containers. The acquisition of iron and tin salts in this manner is an electrochemical phenomenon (1); and the amounts of these metallic salts thus acquired will depend, among other factors, upon the character of the food. In general, the acid foods tend to take up more of these metals; especially when air is admitted after the can is opened. However, the quantities of tin or iron present in canned foods, as a result of reaction with the container, are small; the analytical chemist reports these amounts in "parts per million".

As far as iron is concerned, it is commonly accepted that the amounts of this element—recognized as essential in human nutrition—which may be present in canned foods, are innocuous.

As to the tin salts which may be present in canned foods, the Department of Agriculture has authorized the following statement as the result of its own investigation:

> "Our own experimental work, involving the ingestion of far larger amounts of tin than any previously reported, and supported by the experimental evidence of other investigators, leads us to the conclusion that tin, in the amounts ordinarily found in canned foods and in the quantity which would be ingested in the ordinary individual diet, is for all practical purposes, eliminated and is not productive of harmful effects to the consumer of canned foods." (2)

It may therefore be stated that the amounts of tin and iron salts normally present in commercially canned foods are without significance as far as possible hazard to consumer health is concerned.

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(1) Kohman and Sanborn, Ind. Eng. Chem. 20, 76, 1373 (1928); ibid, 22, 615 (1930).

(2) "Food-Borne Infections and Intoxications", F. W. Tanner, Twin City Pub. Co., Champaign, Ill. 1935, p. 90.

This is the tenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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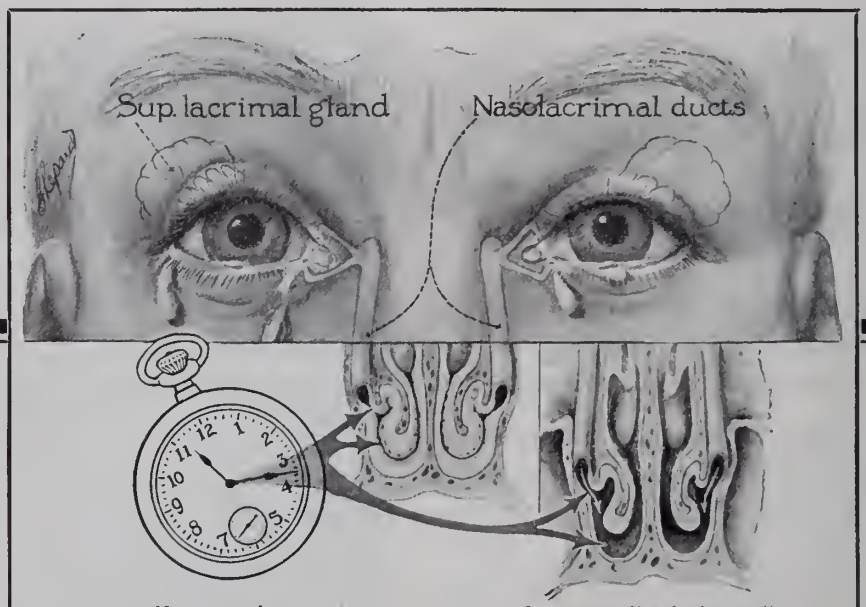

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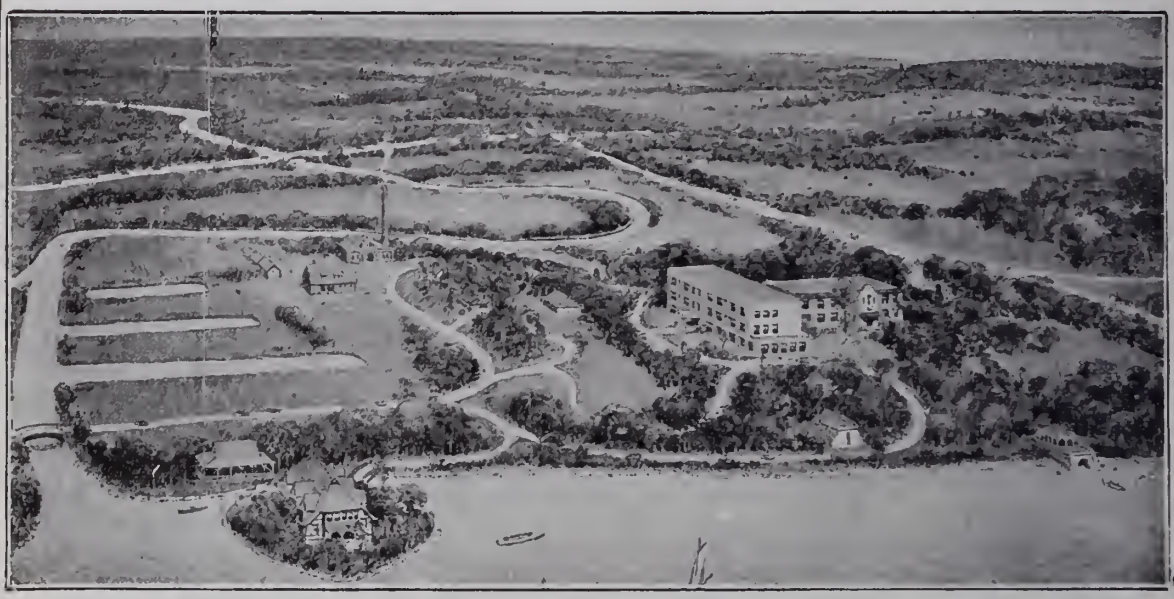

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THE WISCONSIN MEDICAL JOURNAL

Volume XXXV MARCH, 1936 Number 3

The Management of Organic Peripheral Vascular Diseases*

By LOUIS G. HERRMANN, M. D.

Cincinnati, Ohio

MUCH of the pessimism which exists today relative to the prognosis of the truly obliterative arterial diseases of the extremities is largely due to the fact that our therapeutic efforts have been of little avail in forestalling the serious sequelae of arterial insufficiency. As a result, many thousands of lives and limbs are being sacrificed each year at the altar of gangrene—that dreaded consequence of abstraction of the requisite amount of arterial blood from the tissues of an extremity.

The prevention of these serious sequelae has stood as a challenge to the therapeutic ingenuity of physicians and surgeons alike almost from the very dawn of medical history. It would be extremely difficult to establish accurately just when or even at what period the "medicine man" began to associate gangrene of an extremity with a disturbance of the arterial circulation, since all of the earlier observers considered gangrene to be due to lack of innate heat in the part. As far as can be determined, the first presentation of a definite cause and effect relationship between organic arterial disease and gangrene, was made in the monograph "Traité de la Gangrene", written by François Quesnay[1] in 1749. It is quite evident that Quesnay had a very clear idea of the mechanism by which gangrene is brought about. It was not, however, until 1817 that Hébreard and, two years later, Avisard, presented ample pathologic evidence to support Quesnay's clinical observations.

Since that time much clinical and experimental work has been done and a great variety of methods of treatment have been suggested as helpful in the clinical management of deficiencies of arterial circulation in extremities. The seriousness of the changes which take place in the distal portions of an extremity following the sudden abstraction of the required amount of arterial blood from the tissues, places the majority of such disturbances in the realm of surgical emergencies. In the past, the sudden occlusion of the major artery of an extremity by embolism, thrombosis or trauma, usually necessitated some major surgical intervention at the site of the injury to the artery or, more frequently, some radical or mutilating surgical operation. For those patients whose major or secondary arterial pathways were slowly but progressively becoming narrowed causing a marked deficiency in the peripheral distribution of arterial blood, only the usual palliative measures were employed. There is no doubt that the accepted methods of chemotherapy, physical therapy and surgery have contributed greatly to the comfort of the patients but the increase in the arterial circulation was insufficient, in the majority of the cases, to prevent the appearance of some trophic lesion or influence the severe or constant pain.

The treatment of deficiencies of peripheral arterial circulation is extremely difficult and may tax, to the utmost, the ingenuity and the patience of the physician or the surgeon. In general, we may say that all therapy for these disturbances should be directed toward:

1. Prevention of infection of the poorly nourished tissues.

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* From the Department of Surgery, College of Medicine of the University of Cincinnati and the Vascular Disease Services of the Cincinnati General Hospital and the Christian R. Holmes Hospital of the University of Cincinnati. Read at the 94th Anniversary Meeting of the State Medical Society of Wisconsin, Milwaukee, September 18, 1935.

2. Reëstablishment of an adequate circulation through existing collateral arterial pathways.
3. Relief of pain.

The local hygiene of the feet and the prevention of mechanical, chemical and thermal trauma to the parts are extremely important means in preventing infection from gaining entrance into tissues of an affected extremity.

COLLATERAL PATHWAYS

It was the search for a more physiologic means of preventing the serious sequelae of obliterative arterial diseases of the extremities which led us to attempt to stimulate the development of an adequate circulation through the collateral arterial pathways by rhythmically decreasing and increasing the air pressure about an affected extremity. The physiologic effect of diminished or increased environmental pressure has been known for centuries and was applied clinically as a means of increasing the circulation in an extremity, as long ago as 1803, by Ralph Blegborough[2] of England.

The fundamental ideas proposed many years ago by Blegborough[2], Murray[3], Junod[4], Clanny[5], Bluck[6], Bier[7], Klapp[8], and Bibard[9] were put to a practical test in the Vascular Disease Clinic of the Cincinnati General Hospital in August 1932, when we[10, 11, 12, 13, 14, 15, 16] applied the rhythmic alternation of the environmental pressure of extremities in the treatment of deficient peripheral circulation due to organic diseases of the arteries. The problem quickly resolved itself into one of determining the most efficient cycle for the alternation of these pressures and the optimum amounts of negative and positive pressure, which, when applied to patients with diseased peripheral arteries, would bring about the greatest increase in the arterial circulation with the least damage to the delicate tissues of the affected extremity.

Months of intensive experimental and clinical work convinced us of the fact that the actual cycle of alternation of the environmental pressure is of utmost importance, if we are interested in actively stimulating the circulation through collateral arterial pathways within any reasonable length of time. Because of the fact that these apparently insignificant details proved to be of such major importance, extensive study was devoted to the problem of determining the most efficient means of bringing about the physiologic stimulation necessary to overcome such circulatory insufficiency.

In order to conform to the generally accepted principle of dilating or stretching muscular tissue, it appeared quite necessary to cause the pressure to change gradually rather than suddenly. Since this physical method of dilating collateral arterial pathways was essentially passive exercise of the vascular system, the expression *passive vascular exercises* was coined and the contraction *pavaex* was used to designate this method of gradual rise and fall, in cyclic sequence, of the air pressure about the human extremities, with the pressure predominantly in the phase *below* the existing atmospheric pressure, and with the filling time of the vessels approximately a third longer than the emptying time.

We have demonstrated, by clinical and experimental studies, that collateral arterial circulation can be actively developed by the rhythmic alternation of the environmental pressure of an extremity in which all major arterial pathways had been obliterated by trauma or disease.

All active therapy of organic arterial diseases of the extremities should be directed primarily toward the development of an adequate collateral arterial circulation. The influence of the sympathetic nervous system upon the physical state of the collateral arteries must be kept in mind at all times. When the deficiency of peripheral distribution of arterial blood is due to marked or persistent arterial spasm which is of central origin, it would be unreasonable to expect any permanent benefits from a local application, to the extremities, of some mechanical means of stimulating circulation. On the other hand, Sir Thomas Lewis and his coworkers have demonstrated quite conclusively that there are varieties of vasospasm due to certain local derangement in the peripheral portions of the extremity. It is also well established by the work of Lewis and Pickering,[17] and Coller and Maddock[18] that in-

creased environmental temperature brings about vasomotor relaxation. The use of local hyperthermia in conjunction with passive vascular exercises overcomes the peripheral vasospasm which accompanies some of the active types of obliterative arterial diseases of the extremities and thus helps to surmount that important obstacle to the formation of a sustained collateral arterial circulation in an affected extremity.

PHYSICAL AGENTS

The physical agents of *light*, *pressure* and *heat* are, therefore, very important from the therapeutic standpoint. Experimental studies have shown that variations of the environmental pressure produce the greatest effect upon the circulation of blood, while variations in environmental temperature influence more definitely the local metabolism of the tissues. The beneficial effects of hyperthermia during the reconstructive phase after injury to tissues, when the arterial blood supply is ample, have been observed repeatedly. It is a common clinical observation that the application of radiant heat to the extremities of patients suffering from extensive organic arterial diseases, frequently causes the gangrene to spread more rapidly or to appear in patients who showed no gangrene at the time such therapy was started. Freeman[19] has recently shown in experimental studies that local application of heat greatly increases the deficiency of circulation by increasing the local metabolism of tissues with the consequent increase demand of arterial blood.

On the contrary, if the arterial circulation can be increased in proportion to the increase in the demand for blood then the reconstructive processes will naturally take place more quickly. During the past year we have been combining the effects of *passive vascular exercises* with various degrees of *local artificial hyperthermia* with encouraging clinical results, especially in those patients with moist gangrene of one or more toes or some large indolent ulcer on the extremity. The degree of local hyperthermia of the skin of the extremity during the passive vascular exercises should be between 104° F. and 106° F. if the greatest increase in local metabolism of the tissues is to be brought about. Walter Simpson suggested the combination of these physical agents several years ago and we have followed his suggestion of using preheated dry air to bring about the local hyperthermia.

The presence of moist, spreading gangrene adds materially to the seriousness of any disturbance associated with organic disease of the peripheral arteries and hinders the development of the collateral arterial circulation due to the widespread destruction, by inflammation, of the smaller arterial and arteriolar pathways in the extremity. It is especially in this type of patient that the combination of local hyperthermia and passive vascular exercises finds its greatest use.

Visceral pain, which results from the lack of arterial blood to the tissues of an extremity, can be quickly relieved by passive vascular exercises. The excruciating pain associated with acute occlusion of a major artery of the extremity can be quickly and permanently relieved. The intermittent claudication associated with extensive arteriolar obliteration is usually only moderately improved while the type associated with major arterial disease has been benefited to a satisfactory degree in the majority of patients. Local hyperthermia enhances greatly the effect of passive vascular exercises in such cases.

Our greatest responsibility lies in the prevention of the serious complications of inadequate distribution of arterial blood. The vast majority of patients with obliterative arterial diseases of the extremities receive little or no active treatment until some complication such as infection or gangrene actually makes its appearance. Early recognition of the nature and the extent of the organic changes in the peripheral arteries with immediate and intensive treatment will usually forestall serious complications and restore the patient to a wage-earning capacity within a relatively short time. If these conditions are neglected until extensive gangrene actually takes place, then the loss of time and the demoralizing effect of prolonged hospitalization or

invalidism become problems of extreme importance.

McKittrick and Root[20] have emphasized the fact that a painful foot which remains healed only when the patient is in bed is of little use; yet, on the other hand, the loss of an extremity is a tremendous handicap to any man, particularly to a man in the fifth or sixth decades of life. Amputation of an extremity must frequently be resorted to as a means of saving the patient's life or perhaps rehabilitating an otherwise useless one; nevertheless, such a mutilating operation should be performed only after careful and deliberate weighing of all the evidence presented by each individual patient.

The surgeon who removes an extremity and the internist who directs the treatment of the associated diabetes mellitus or chronic heart disease are equally responsible for the immediate care of the patient, but the surgeon must shoulder the full responsibility of outlining the specific treatment of the gangrene and deciding just when and at what level an amputation should be performed. It is the task of the surgeon which has been lightened by the passive vascular exercise method of overcoming these acute circulatory insufficiencies, for not only have we been able to prevent the occurrence or extension of the gangrene in a large series of such patients, but we have also been able to bring about sufficient increase in the arterial circulation to enable us to perform the more conservative types of amputations with safety. In the clinical management of gangrene, judgment must be exercised in all cases and a conservative method of treatment is never to be recommended when only heroic surgical procedures are indicated.

CONCLUSIONS

The number of patients who have been relieved of their discomfort or restored to wage-earning capacity without loss of an extremity has proved to us the true value of this conservative and simple method of treatment, when it is applied to properly selected cases of arterial insufficiency due to organic obliteration of the major arteries.

The permanency of the collateral arterial circulation which is developed by this means is also dependent upon the nature of the disturbances, since we have found that the increase in the circulation brought about in patients with arteriosclerosis not only remains active, but, in many patients, it has increased in magnitude until a definite and efficient circulatory balance had been brought about. Pulses have become palpable in the genicular arteries and in the collateral arteries about the ankle or hip, while all evidences of a circulatory insufficiency had vanished, even though the major vessels remained completely obstructed.

The problem is somewhat different when we are dealing with the active types of arteritis or angiitis since the artificially induced collateral circulation may only remain efficient while the disease is quiescent. Renewed activity frequently causes the disease to spread to these functioning arterioles and small arteries and recrudescence occurs. Experiences of that type have convinced us that a definite assurance of *permanent* relief to patients with advanced degrees of true thrombo-angiitis obliterans should not be made; and in order not to raise hopes falsely, we have constantly emphasized the fact that passive vascular exercises should not be considered primarily indicated in such cases. The very nature of the disease precludes the possibility of permanent cure until the etiology of that pathologic entity becomes definitely established and some specific remedy becomes available.

If the passive vascular exercise method of therapy is properly and diligently applied to those types of arterial insufficiency which have been shown to react favorably to it, satisfactory results will be obtained. Unfortunately, too much is usually expected from this purely mechanical method and the results frequently turn out to be disappointing in the eyes of both the physician and the patient. We must guard against overenthusiasm in this field, as in all other fields of medicine and surgery, for as yet science has not given us a panacea for all human ills.

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DISCUSSION

Dr. John L. Yates (Milwaukee): Active life continues as long as people are able to make adequate volumes of good blood and lymph and to deliver them equably and economically. The basic obligations of everyone, however, engaged in medicine, are to assist people to develop and to conserve capacities properly to form and to distribute blood and lymph.

Doctor Hermann and his associates have improved the apparatus and the utilization of pavaex treatment with and without hyperthermia. This was designed primarily to assist in a correction of inequity of distribution of blood through the systemic arteries in extremities. They are to be commended for their extraordinarily successful achievements and for the benefits they have conferred upon many people.

Only those who have enjoyed the privilege of visiting them at Cincinnati can appreciate the excellence of their accurate work and their commendable overconservatism in interpreting their observations. They know, though they have not published, other circulatory inequities in blood and lymph distribution, that are amenable to pavaex treatment.

Uneconomical distribution of blood achieved by arterial hypertension may be traced in some people to spastic, organic, or both spastic and organic contractions of the lumens of systemic arterioles. In some patients, pavaex treatment of this form of essential hypertension are remarkably beneficial. This also they have known but have not published.

We are indebted to Doctor Herrmann not only for his instructive presentation but also for stimulation of our endeavors rationally to become ever more helpful.

A Survey of Urinary Frequency in Women

By JOHN B. WEAR, M. D.
Associate Professor of Urology, University of Wisconsin, Madison

SYMPTOMS arising remotely to the primary lesion are always an interesting source of diagnostic speculation. In many regions of the body they are well understood and properly evaluated. That the bladder would manifest symptoms when not primarily involved is to be expected, but this fact is many times ignored. Urinary frequency is the one constant symptom arising from irritation to the vesicle mucous membrane, but bladder physiology may be disturbed from many remote sources and

lesions. Many writers have referred to the bladder as the voice of the urinary tract. Urinary frequency is particularly common in the female and because of the notoriously weak sphincter may be regarded as more the usual than unusual. Because of its intermediary position in the urinary tract and its contracting, relaxing and storing functions, the bladder is particularly liable to insult. Even more so is this true in the female, where it is so closely associated with the generative organs and plays a part in their physiological activity. The short urethra of large caliber in close proximity to the vagina and rectum offers a potent avenue for involvement of the bladder.

That it is a condition of considerable interest is readily ascertained by a study of the literature. Bugbee in 1917 reviewed 1,000 cases of urinary frequency in women. The most common diagnosis in his series was urethritis and trigonitis. Uterine fibroids, pelvic inflammation, and uterine displacements were causing the frequency in 62 cases. Not a case of primary cystitis is mentioned, and 36 cases were attributed to neuroses.

Quimby, Clark, Austin, and others have cited gynecological conditions as the primary cause of urinary frequency.

Carey has called attention to short, nonpersisting periods of frequency due to physiological changes in the trigon during pregnancy and the menstrual period. Stephens has noted the fact that strictures of the female urethra are common and has urged routine exploration with large bulbs in all cases.

A negative diagnosis rather than a mistaken diagnosis is the more common error in investigating this condition. Therefore, to reduce the possibility of error, a method of approach must be adopted which takes nothing for granted. Immediately then we must divide our search for the etiology into two possible sources: (1) factors lying within the urinary tract and (2) factors lying outside the urinary tract.

Extra-urinary tract causes of urinary frequency are perhaps the most frequently overlooked, because the patient is convinced that the trouble lies within the bladder and resents an extraneous investigation. We are then tempted to direct our treatment to the local manifestation of the trouble—the bladder. The first step in our investigation should be to establish the fact that the patient has a frequency and not a polyuria. A simple measuring of the twenty-four-hour intake and output will give this information.

THREE REGIONS

The three regions that are most likely to be the seat of trouble in extra-urinary tract frequency are the central nervous system, the pelvis, and the perineum.

Any condition that causes an interference with the nerve supply to the bladder will ultimately cause frequency as a result of residual urine, infection, or bladder pain. Common examples of this are seen in tabes, pernicious anemia, injuries, poliomyelitis, and cord tumor. Then we see the highly nervous type of individual whose bladder reacts to many psychic stimuli such as: emotion, riding on trains, running water, and knowing that she is going some place where she must hold her urine for a considerable time. Another type of individual, whose frequency can usually be diagnosed from a carefully taken history, is the one with a habit bladder. This is generally due to lack of training or a lack of desire to remedy the condition. However, any normal individual can soon arrive at this state by trying to empty the bladder at frequent intervals until the bladder causes pain when it is called upon to hold a fair quantity. According to Campbell, the so-called irritable bladder is produced reflexly. It is due to bladder neck hyperesthesia plus various sources of peripheral irritation. These irritative factors may be vulvitis, vaginitis, labial tumors, excessive coitus, or rectal new growths and fissures.

The pelvic source of urinary frequency is usually found under one of the following: (1) pressure on the bladder, as is seen in large uterine fibroids and pelvic tumors; (2) inflammation extending to the bladder, as from acute salpingitis and pelvic abscess; (3) physiological changes, as are seen in pregnancy and during the menstrual period;

(4) relaxation of the pelvic floor, causing a sagging of the bladder and resulting in cystocele. However, cystocele is of no consequence as far as frequency is concerned, unless it is causing a residual urine.

Etiological factors lying within the urinary tract will naturally fall into three locations: (1) those arising in the upper urinary tract; (2) those arising in the bladder itself; and (3) those arising in the urethra or below the bladder. Of these three, the bladder itself is the least often involved as the primary seat of the trouble, although frequency is universally regarded as a bladder symptom.

Realizing then that the lesion may be found in any of the above mentioned locations or conditions, we are forced to adopt a rather strict routine procedure in our efforts at diagnosis.

VALUE OF HISTORY

If we proceed on the assumption that the patient's story is worth hearing and that every system is worthy of acute observation, our problem becomes correspondingly simple. The past illnesses and general health of the individual many times will offer a lead in the right direction. In the present illness particular attention should be paid to: (1) the duration of the frequency (many of the non-specific urinary tract infections are self-limited, and the longer the symptom has persisted the more serious the factors likely to be present); (2) whether the frequency is constant or intermittent and if anything seems to influence it; (3) whether it is worse in the daytime or at night, and if at night whether it awakens the patient from sleep. Many times patients will complain of frequency, yet they will never have to get up at night; this is usually seen in the nervous individual.

In the physical examination the central nervous sytem should be carefully ruled out. A competent pelvic examination must be done, including a visual inspection of the cervix and urethra. An examination of the abdomen will reveal enlargement in the kidney regions and a distended or tender bladder.

We then proceed to the special and laboratory examinations.

The special examinations should begin with a determination of the residual urine. Infection is inevitable in the bladder that does not completely empty itself. This condition is always found in the cord bladder, sometimes found in postpartum cases and cystocele, and practically always found in the postoperative bladder in which it has been necessary to use the catheter.

Much valuable information may be had from a catheterized urine, and an uncatheterized urine that contains pus is valueless in the female. However, when nothing abnormal is found, trouble in the urinary tract is not ruled out. A negative urine is sometimes seen in panmural ulcer of the bladder, ureteral stricture, hydronephrosis, a low-grade B. coli pyelonephritis, early tuberculosis, and often in urethritis and stricture of the urethra. Another common source of error is depending for our impression on one urinalysis; at least three urine specimens should be examined, and as none of these patients have emergency conditions, a little patience and time are often rewarded with success. Stain and culture of the bladder urine are valuable adjuncts in establishing the presence of bacteria.

A visual and instrumental investigation of the urethra will quickly establish the presence of urethral stricture, caruncle or urethritis. The female urethra should take a #F 30 bulb; and, if a "hang" is encountered, dilatation is indicated. Caruncles usually lie in the anterior third and in this region no instrument is necessary, but farther back a urethroscope is needed. If pus can be milked from the urethra, urethritis is apparent; but if pus is not seen, urethritis is not ruled and the urethroscope is again necessary.

The plain flat plate will rule out in most cases the presence of renal, ureteral, or vesical calculi, as well as the possible presence of a spina bifida occulta.

An x-ray of the bladder filled with some radiopaque solution, as silver iodide or sodium iodide, will aid in the diagnosis of diverticuli and malignant growths.

After the above investigative procedures have failed to establish a diagnosis we then use the cystoscope. This should be the last procedure after a complete study of the patient, including kidney function tests. The passing of a cystoscope will not rule out urethral stricture, nor does a normally appearing bladder preclude the possibility of an infected kidney.

REPORT OF STUDY

The records of 100 women examined by the urological department for urinary frequency were investigated in order to determine the location of the primary lesion. The obvious cases of severe pyelonephritis, tuberculosis, tumor, etc., were not included in this series. Eighteen different diagnoses were made in the 100 cases. The most common condition found was that of low-grade chronic pyelonephritis of one or both sides. In 61 cases the primary involvement was found to lie above the bladder. The diagnoses in this group were: pyelitis of one or both sides—49; early tuberculosis—1; pelvic stone—3; ureteral stricture—5; and ptosis—3. In 18 of these 61 cases the bladder was normal to inspection.

In 17 cases the trouble was found to lie below the bladder. The diagnoses in this group were: urethral stricture—9; urethritis—5; and urethral caruncle—3. In six of these cases the bladder was normal to inspection.

In eight cases the bladder was the primary seat of involvement. The diagnoses in this group were: trigonitis—3; cystitis with cystocele—1; papilloma—1; stone—1; and bladder irritability due to applications of radium to the cervix—2.

In eleven cases the pathology was found outside the urinary tract. The diagnoses in this group were: uterine fibroid—4; pelvic inflammation—3; cord tumor—1; spina bifida—2; and lack of training—1.

In three cases we could find no cause for the frequency.

It will be noted that the bladder showed no visual evidence of pathological change in 38 cases. We believe this finding to be of some significance in establishing the fact that urinary frequency does not always indicate that the bladder is the primary seat of the pathological change.

CONCLUSIONS

(1) Urinary frequency in women is common.

(2) Failure to find the cause is due to lack of investigation in most cases.

(3) The etiological factors are numerous—18 in this series of 100.

(4) The etiology may lie outside the urinary tract.

(5) The most frequent location of the lesion is in the upper urinary tract.

(6) The bladder may show no visual evidence of change.

(7) Involvement of the bladder alone is rare.

(8) Treatment of the bladder is not indicated until a correct diagnosis is made.

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Clinical Experiences with Ultra Short Wave Therapy*

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IN SHORT wave therapy electrical high frequency treatment units are used with electrical waves with oscillations from 10 to 100 million per second, and have been designated as short or ultra short waves. The biological effects of these waves on the organism and on human diseases has been the subject of study since 1926 in Germany and more recently in this country. Unfortunately, this method has been confused

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with diathermy and considered as a modified diathermy. To my mind, this is not true, for the use of diathermy has been avoided in acute infectious diseases. As will be detailed below, I have used short wave therapy extensively in acute infectious processes. In this method the part to be treated is placed in an electric-field as it exists between condenser plates of a closed oscillation circuit. There is no contact of the electrodes with the patient. Investigated work in foreign countries have been repeated in the United States. Sheard and coworkers of Rochester, Minnesota, and Bachem of the University of Illinois, reported experiments definitely demonstrating that a depth heating effect could be produced in bone, and in muscle,—the temperature of bone and muscle being 4 to 2 degrees higher than that of the skin.

In the language of the layman these treatments are administered by radio wave broadcasting units, and the patient is placed in the radio wave field. Many controversial questions have been aroused as to the biological effects of short radio waves. The questions as to bactericidal effect, of the effect on the colloidal conditon of the organic matter, point heating, et cetera, will not be discussed at this meeting.

The first short wave treatment was given in March, 1929, at the Medical Clinic at Jena, where Schliephake attempted to cure a nasal furuncle upon himself. We are using four treatment units, one with an output of 200 to 600 watts, producing waves varying from 3 to 15 meters in length and with a frequency of 20 to 100 million per second, three with an output of 300 watts and a frequency of 50 million per second, producing 6 meter waves. A portable instrument is being replaced because the clinical results were not as good, and on account of its low output, that being about 125 watts. These valve tube oscillator units, to us, from the standpoint of capacity, self-inductance, frequency and wave-length, oscillation starting, coupling, resonance and tuning, current and voltage, and maintenance are the best available, at present. We now use, whenever possible, glass condenser electrodes in preference to flexible rubber-covered condenser electrodes, for depth effect.

The electrodes are so placed that the maximum heating sensation occurs in the lesion, care being taken that the patient feels only a sense of comfortable, pleasing warmth. In the treatment of suppurative infectious processes, in soft tissue infections and in post-injury treatments the relief of local tension felt is an excellent guide for proper field strength dosage.

Burns do occur if too strong currents are used or if perspiration is allowed to remain on the skin of the treated part. We have had three superficial vesicles appear upon the skin of the treated part. They healed quickly and readily and did not interfere with administration of daily treatments. It is just as silly to emphasize burns as a major factor in short wave therapy as it would be to avoid using x-ray facilities because of occasional burns. There is no record of organic damage to patients or operators, although functional symptoms may occur in certain operators. These symptoms, which quickly disappear with a few days absence from work, may be irritability, fatigue, lassitude, malaise, apathy, restlessness, insomnia, headache or a feeling of tension in the scalp and forehead, depression, and cramplike feelings of the extremities.

We have given 503 patients 4,610 treatments as follows: Furuncles 235 treatments in 69 cases; carbuncles 53 treatments in 9 cases; acne 355 treatments in 13 cases; sciatica 53 treatments in 8 cases; breast abscesses 36 treatments in 6 cases; post-operative lesions 71 treatments in 7 cases; lymphadenitis 102 treatments in 8 cases; chronic tonsillitis 9 treatments in 4 cases; asthma 101 treatments in 6 cases; frost-bites 3 treatments in 2 cases; pulmonary infections 105 treatments in 6 cases; phlebitis 35 treatments in 2 cases; phlebitis with leg ulcer 86 treatments in 3 cases; pelvic infections 128 treatments in 10 cases; dental infections 88 treatments in 8 cases; sinus infection 160 treatments in 29 cases; acute infections 218 treatments in 47 cases; arthritis 917 treatments in 50 cases; injuries 197 treatments in 38 cases; backstrain and backache 111 treatments in 24 cases; soft

tissue infections 507 treatments in 64 cases; chronic infections 91 treatments in 9 cases. And the remaining 27 cases were treated for various other diseases.

It is obviously impossible to discuss at this time in detail the clinical management of each of the lesions mentioned above. The management of furuncles, carbuncles, hidradenitis, breast abscesses and acute infections will be covered.

REPORT OF STUDY

In the treatment of 69 cases of more or less extensive furuncles, with 235 treatments there were ten cases of nasal furuncles, which were given 32 treatments, an average of 3.2 treatments per patient, with complete cure of all cases. These furuncles were treated in all stages of the disease. Sometimes they were acute furuncles at the height of their development, and at other times were only just developing, hard and nonpurulent. In about 25 per cent of the cases there was more or less marked lymphangitis and swelling of the regional lymph glands.

The course of the disease varies according to the stage at which the patient comes for treatment. If there is only an inflammatory effusion, and the furuncle is still small, the reddened top becomes sharply demarcated from the surroundings after the first radiation, and the center shrivels up and dries. On the following day, or the day after that, there is only a reddish brown superficial elevation, which disappears quickly, as a rule the next day, and the part attacked can then no longer be distinguished from the surroundings.

The course differed when the furuncle had already become soft. In this case as a rule it burst very soon, very often during the radiation; often in a few hours later, or during the following night. A large amount of pus was not discharged, but shortly afterwards the necrotic core was extruded. After this the discharge usually ceased, and this was followed by a remarkably speedy and complete cure, generally 2 to 3 days. This same course followed essentially after treatment of every inflammatory focus by short waves. In fresh effusions absorption, and in older cases demarcation and resolution, were hastened.

It may be remarked that the field must not be made too strong during treatment. One should only go on until a pleasant warmth and relief of tension are felt. If stronger currents are used the focus is cured, but heat coagulation will occur, which soon becomes apparent in the reddish-blue discoloration of the furuncle and its surroundings. The healing then usually takes longer, often 8 to 10 days.

In the treatment of 9 cases of carbuncles with 53 treatments, 8 cases were healed completely without any unsightly scar formation and with no complications, and without any other accessory treatment. The only failure appeared to be due to the fact that the treatment unit was insufficient in capacity.

Three cases of hidradenitis responded readily to short wave therapy, in which special glass condenser axillary electrodes were employed. Three cases were given 37 treatments, an average of 12.4 per patient.

Six cases of post puerperal breast abscesses were treated, one being of over a year's duration. A recent case is still under treatment, but the other five are entirely recovered after 32 treatments, an average of 6.4 treatments per patient. No further incision was necessary in any one of these cases.

We treated 47 cases of acute infections with 218 treatments. Acute infections such as:

Case 1. Baby, 2 years old, was brought in June 7, 1935, had scratched his leg on brass ash tray. Temperature of 105. Leg was very red and swollen. He was given three treatments and on the third day temperature was normal and the swelling gone.

Case 2. Peter, 3 years old, came in July 14, 1934, with a suppurative parotitis and otitis media, with a temperature of 103 at the initial treatment. Has remained healed after 18 treatments since July, 1934. Previous x-ray radiation failed to benefit this case for it recurred within a few months.

Case 3. Mr. M., scratched his hand on a nail and came in July 3, 1935, with a temperature of 102. Had swollen and red streak up his arm, and glands in armpit were very tender. He had three treatments and was cured.

Case 4. Mr. G. (assistant to undertaker) came in September 1, 1935. Had a vesicle on thumb—was embalming a body when blister broke and infection started in thumb. Patient also infected his left eye. He had six treatments to both thumb and eye and was completely healed.

Case 5. Mr. L., came in July 18, 1935. Patient let a razor blade fall on top of left foot. Had a temperature of 99.4, foot was very swollen and some pain. He had four treatments and was dismissed as cured.

Case 6. Miss H., a diabetic patient came in February 6, 1935, with an infection in her big toe on the right foot. Toe was very tender and swollen and felt as if it were full of fluid. She had two treatments and was completely relieved.

Case 7. Mr. A., just recovering from scarlet fever. He came in July 27, 1935, with his left eyelid swollen shut and very tender and painful. Pain was relieved by one treatment and the next day eyelid abscess spontaneously drained and relieved. He had nine treatments.

Case 8. Miss L., scratched palm of hand, and came in July 20, 1935, with temperature of 101. Hand was very tender. Second treatment lesion spontaneously opened and drained. Healed after five treatments.

Treated three felons with ten treatments and all were completely cured, (one a surgeon).

One thing is certain viz., the phagocytosis found by Jorns obviously takes place not only in the region immediately subjected to the condenser field, but over the whole body, and may be traced to changes in the serum. Before closing, I would like to report the results of white blood cell counts taken immediately before and immediately after treatment. Case 1. Bilateral cervical adenitis in an 11-year-old child, Rosemary, 6 years' duration, etiology undulant fever. Before treatment W. B. C. 9,550; after treatment W. B. C. 11,500.

Case 2. Mr. M., bronchiectasis, after the 5th treatment. Before treatment W. B. C. 11,950; after treatment W. B. C. 18,750. Taken after the 6th treatment his count was: before treatment W. B. C. 11,200; after treatment W. B. C. 14,300.

CONCLUSIONS

1. Short wave radio therapy is indicated in the treatment of suppurative infectious processes at any stage of the lesions.

2. This therapy is of distinct value in the precipitation of localization of infectious processes effecting cures more rapidly or permitting the surgeon to operate at an earlier time.

3. My experiences with short wave therapy in arthritis and its allied conditions, pulmonary disease, and other soft tissue infections will be reported at some other future time.

Nephrolithiasis and Bone Disease

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THE frequency of the development of renal calculi in patients suffering with severe bone injury and bone disease suggests a relationship between these conditions. In the literature are numerous references to this. Squire calls attention to the formation of calculi in patients with osteomalacia, osteoporosis, coxitis, severe rickets and fractures. Joly discusses the formation of calculi in patients with fractured femurs, gun shot wounds of the lower extremities, and children with tuberculosis of the hips or spine and in patients with severe disease in which the bone is not involved, where he thinks the frequency too great to be coincidental. Paul reports twenty cases of renal calculi in ex-soldiers who had had severe bone injury and states that suppuration had occurred in nineteen. Borman reported calcium phosphate stones in a child, aged nine, who had had a suppurating bone lesion. Numerous reports are available of renal calculi occurring in children immobilized for tuberculosis of the hips or spine.

We recently observed on the the Urological Service of the Wisconsin General Hospital five patients with renal calculi which developed following severe bone injury. Four of these patients were in the hospital at the same time and aroused our interest in the subject. Brief resumes of these case records are as follows:

B. M. A white female, aged 17, had suffered from osteomyelitis of the left tibia and both hip joints since December, 1927. Both hips became ankylosed but infection persisted in the left tibia.

Fig. I, Case I. Bilateral septic coxitis with ankylosis of both hips.

Fig. II, Case I. Multiple calculi in left kidney, composed almost entirely of calcium phosphate.

Examination on February 1, 1935, revealed multiple calculi in the left kidney and one calculus in the lower left ureter. A left nephrectomy was performed on April 18, 1935. The calculi were composed almost entirely of calcium phosphate. A small amount of carbonate and organic material was present.

O. O. A white male, aged 36, fractured the second, third, and fourth lumbar vertebrae on June 5, 1933. He did not lose control of the bladder but was confined to bed constantly and was admitted to the Wisconsin General Hospital on February 23,

Fig. III, Case II. Compression fracture of vertebra.

Fig. IV, Case II. Large calculus in right kidney and three in the bladder. These stones were largely calcium phosphate.

Fig. V, Case III. Gunshot wound of left hip with infection and great destruction.

Fig. VI, Case III. X-ray taken in September, 1932. Note large branched calculus in right kidney and small calculus in left kidney.

Fig. VII, Case III. X-ray taken in March, 1935. Note decrease in size of calculi in right kidney and increase in left. The patient had had no treatment.

1935. One large calculus was found in the right kidney and three small calculi in the bladder. Those in the bladder were crushed and removed; that in the kidney was removed by pelviolithotomy. On chemical examination these calculi were found to be composed of calcium phosphate and carbonate with a small amount of organic material.

A. J. White male, aged 24, was first admitted to the Wisconsin General Hospital in November, 1931, with a gunshot wound in the left hip. This condition was treated by drainage and extension but before his discharge on May 15, 1932, radiograms revealed a left renal calculus. A sinus from the hip persisted and the purulent material draining from this wound showed staphylococcus albus on culture. On March 13, 1935, he was admitted to the Urological Service. Examination revealed bilateral renal calculi and a great many buckshot in the region of the left hip which was badly infected. The calculi were removed from both kidneys by pelviolithotomy and were found to be composed principally of calcium phosphate. A little carbonate was present.

W. S. A white male, aged 23, was admitted to the Wisconsin General Hospital on March 10, 1935. In an automobile accident in June, 1934, he had fractured the pelvis, left acetabulum and left femur. The bulbous urethra was ruptured. He was confined to the hospital for twenty-nine weeks, five of which were spent in a body cast. On admission to the Wisconsin General Hospital his complaints were

Fig. VIII, Case IV. Fracture of pelvis and left femur.

Fig. IX, Case IV. Right ureteral calculus which passed following dilatation.

of difficulty in walking, shortening of the left leg, difficulty in urinating, frequency and dysuria. Radiograms showed a calculus one centimeter in diameter in the midportion of the right ureter. As great difficulty in urinating resulted from the traumatic stricture of the urethra, operation for this seemed necessary. At the time of his operation a ureteral catheter was placed up the right ureter to the renal pelvis. The ureter was almost completely obstructed by the stone. This catheter was left in place for several days and after its removal the stone disappeared. It apparently was passed though it was not recovered.

Fig. X, Case V. On March 16, 1934, a large calculus completely filled the right kidney pelvis and calyces, and multiple large calculi were in the left pelvis and calyces.

C. H. A girl, aged 13, was admitted to the Orthopedic Service of the Wisconsin General Hospital on March 15, 1934, with coxitis. She had been sick for three and one-half months. Radiograms revealed great destruction of both hip joints, a partial destruction of the left ilium and a small area of destruction in the right tibia. Large calculi were present in both kidneys. Appropriate treatment was instituted for the hips and the patient was permitted to return home on April 11, 1934. About six weeks later she returned and great general improvement was noted. The hips had become ankylosed. She had passed a large amount of sandy material in the urine, a quantity of which she had saved. Chemical examination of this showed it to be composed largely of magnesium phosphate; a small amount of ammonium phosphate was present. X-rays of the kidneys indicated that the large calculi previously shown had completely disintegrated and had passed. An excretory urogram at this time showed normal kidney pelves and ureters.

COMPOSITION OF CALCULI

These calculi occurring with bone injury and bone disease are composed of phosphates. In four of our five cases the stones were examined chemically. In three calcium phosphate was the chief constituent. A little calcium carbonate and organic

Fig. XI, Case V. On July 6, 1934, x-ray showed no stones present. They had disintegrated and passed, without treatment.

Fig. XII, Case V. Excretory urogram taken after spontaneous dissolution of calculi. The kidneys are practically normal.

material was present. In one magnesium phosphate was the chief constituent with a small amount of ammonium phosphate present. In the literature when the chemical composition is mentioned, phosphates (usually calcium phosphate) are reported as the chief constituents.

CAUSE OF FORMATION

The general cause of stone formation is still in a state of confusion but it has been demonstrated by Keyser that a marked increase in the urinary crystalloids will cause precipitation and stone formation. Clinically, stones due to this cause are found in hyper-parathyroidism. There is considerable evidence to suggest that these phosphatic stones occurring with bone disease or bone injury are likewise caused, at least in part, by the excessive excretion in great concentration of calcium and other salts which result from general or local decalcification of the skeletal system with elimination of the salts through the kidneys. Unfortunately, studies of the quantity of these salts excreted in the urine over long periods following bone injury are not available. However, the following evidence is offered. The constant factors in our cases and those in the literature are recumbency and relative immobility for a long period of time. That the disuse of the skeletal system occasioned by recumbency and immobility for a long period of time leads to general decalcification is asserted by Watson and Roberts and is, I believe, generally accepted by orthopedic surgeons. It can be demonstrated with the x-ray. Then some of the local lesions are of a decalcifying type. Therefore patients with local bone injury or lesions of a decalcifying type must eliminate from the body the calcium from the local lesion and also that which is incidental to a general decalcification brought about by the treatment required for the ailment. Calcium is eliminated from the body in two ways: through the kidneys and through the bowels. Aub has shown that the calcium in the urine may be increased far above normal in certain conditions while the blood calcium remains within normal limits. Schutzer, Nachlos and others have shown that with decalcification the urine calcium is greatly increased. Hunter states that the excessive elimination of calcium for long periods may lead to renal cellular degeneration. These

facts seem to justify the belief that the high concentration of calcium and other salts in the urine at some time during the course of the disease is an important factor in the formation of these phosphatic stones occurring after bone injury or during the course of bone disease. Undoubtedly other factors play an important part. Bone suppuration, though occurring in many cases, is not essential to stone formation. The reaction of the urine may be important as we know that phosphates are more readily precipitated from a urine which is alkaline, neutral, or only very slightly acid. Though records of the published cases indicate that infection is not always a factor, we cannot, on the other hand, state that it is never a factor. Recumbency alone or recumbency plus swelling and edema of the pelvis and ureters caused by infection may result in stasis in kidneys which would ordinarily drain satisfactorily and this stasis may predispose to the formation of calculi.

PREVENTIVE TREATMENT

It is appropriate that we should direct our attention to means of preventing these stones and sufficient information is available regarding the cause to suggest possible means of prevention. Hunter points out the effect of diet on the elimination of calcium through the kidneys and states that acid-forming diets double the excretion of calcium. Acid-forming diets also increase the acidity of the urine and therefore lessen the tendency to precipitation of the phosphates. Hunter also cites the work of Aub who found the elimination of calcium greatly increased by the administration of ammonium chloride. Twelve grams of this drug administered daily increased the calcium in the urine in a three-day period from 1/10 of a gram to 1 1/10 grams. What then can be done to prevent the formation of renal calculi in patients recumbent or immobilized for long periods of time or with destructive bone lesions? From our present knowledge of the subject the following measures are suggested:

1. The greatest movement of the body consistent with appropriate treatment to limit decalcification.
2. An acid base diet and ammonium chloride to facilitate the elimination of calcium salts through the kidneys and increase the solubility of these salts by maintaining a highly acid urine. These measures may also prevent certain infections from becoming firmly established in the kidneys.
3. A high fluid intake to dilute the urine.
4. Appropriate treatment for renal infections when present.

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Experiences with Forced Spinal Drainage of the Central Nervous System*

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IF ANY excuses should be needed for presenting to you the subject of forced spinal drainage, we would plead but two: the advances made to influence the course of infections of the central nervous system, and the attack on the fatalistic attitude in regard to therapeusis of nervous and mental disorders.

Any type of treatment, theoretically sound, and with reasonable prospects of reducing the mortality rate, or of improving the clinical course and the sequelae of

* From the Wisconsin Psychiatric Institute, University of Wisconsin Medical School. Presented before 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, September, 1935.

meningitis, encephalitis, myelitis, poliomyelitis or its combinations merits investigation. But careful scrutinization of the results is necessary before any conclusions are drawn, to avoid unjustified enthusiasm with ethereal speculations by our profession.

John Hunter's famous advice to Edward Jenner: "Don't think, try!" should not be sardonically interpreted. Hunter advocated experimentation rather than prophecies, assimilation of data rather than hypotheses. Adherence to the aphorism: "Don't think, try" would have saved many scientists from bitter disappointments in their theories and from being grouped with word-juggling psychoanalysts. Koch's and Ehrlich's great discoveries did not fulfill the predicted cure for tuberculosis and syphilis. Tryparsamide had been discarded by the Rockefeller Foundation as not being efficacious in the treatment of syphilis but Lorenz tried it and the acknowledged benefits from the drug in neurosyphilis are known to you. Liver-, fever-, iodine-therapy, to name a few, rest on a purely empirical basis; they were tried and proved successful, but the thinking about the many possible theories is not yet finished.

Forced spinal drainage differs from continuous spinal drainage inasmuch as drainage alone is not the essential factor. The latter, with various methods of the procedure, is being used with contradicting results in different types of meningitis[1,2], multiple sclerosis[3], and syphilis. Its benefits are explained mainly by the mechanical removal of excessive spinal fluid, by the release of pressure phenomena from the brain and cord, and possibly by better blood circulation in the nervous system.

ORIGIN

Forced spinal drainage, as used today, has its origin in the experimental studies on cats by Kubie[4], which followed the work of Key and Retzius (1876) on the anatomic pathways of cerebrospinal secretion and absorption, of Starling (1909) on the formation of lymph, of Weed and McKibben (1919) on the choroid plexus and spinal fluid behavior after hyper- or hypotonic injections, and of many other contributors to the question of spinal fluid production, distribution, function and absorption. Kubie's conclusions were drawn from precise observations and impressive histopathology which compared clinical data and sections of tissue alteration in drained and undrained animals. His method consists of prolonged cerebrospinal fluid drainage by lumbar puncture during the course of which more and new tissue fluid is created by reducing the osmotic pressure of the blood by intravenous administration of hypotonic salt solution, and by additional large amounts of water orally. It is assumed that the new formation of cerebrospinal fluid is produced by transudation from the blood vessels of the central nervous system into the perineural and perivascular tissue channels which communicate with the subarachnoid space, that the centrifugal flow of cerebrospinal fluid facilitates the elimination of products from focal irritations and from reactive proliferations of inflammations deep in the central nervous system through these perineural and perivascular spaces into the subarachnoid system which permits an easy mechanical removal of such causative or reactive substances, that the induced excessive transudation follows the physiologic laws of circulatory diffusion, and that, therefore, the method could be utilized also to bring into the parenchyma and to areas of inflammation chemic or immunologic agents via the blood stream or directly into the now less congested subarachnoid space and its contributary channels. These conclusions have been more or less accepted as facts in the discussion on the subject of forced spinal drainage.

RETAN'S EXPERIENCE

The practical efficacy has been demonstrated in a limited number of cases as yet by investigators in this country; we do not know of any reports in the foreign literature. Outstanding in the experimental and clinical application of forced spinal drainage or forced perivascular drainage (Retan) with detailed observations of the reactions are the contributions by George M. Retan[5] of Syracuse University. The procedure of

washing out inflammatory exudates through the patent channels of the perineural and perivascular spaces into the subarachnoid space by continuous spinal drainage has been reported by Retan in cases of tuberculous, streptococcus, pneumococcus and syphilitic meningitis, of acute and chronic encephalitis, of acute poliomyelitis, of chorea, of tabes, all of which have similar pathology in tissue and cells and present perivascular round cell infiltration.

Retan's technic is as follows: The patient is placed comfortably on a Bradford frame permitting slow or rapid drainage of spinal fluid from the lumbar region through a stylet needle anchored at a gap in the canvas frame for a period of a few hours or a few days. As soon as the intracranial pressure balances the atmospheric pressure, that is, when spinal fluid escapes by drops very slowly, then the one to three hours lasting venoclysis (arm or foot) with 1 to 3 liters of 0.45 per cent sodium chloride solution by gravity method begins; again concentration, volume duration and rate of the intravenous injection depends upon the case and the condition of the patient. A hypotonic solution of 0.45 per cent sodium chloride is used to prevent hemolysis of the red cells but lesser concentration may be given depending upon the fragility fraction of the red cells of the individual. Needless to say that headache, nausea, vomiting, chills or convulsions necessitate a temporary interruption of the spinal fluid drainage, or of the venoclysis, if an attempt to decrease the velocity of the venoclysis and at the same time to reduce the speed of spinal fluid drainage has been unsuccessful to improve or to stop the complaints.

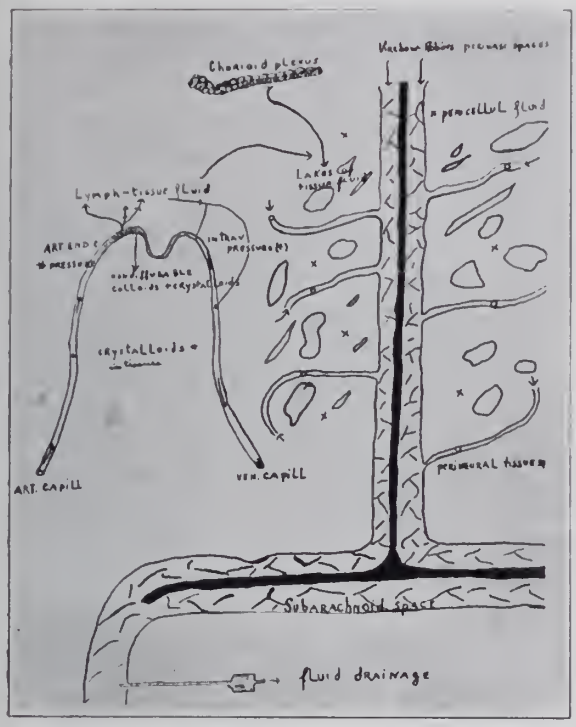
Retan was able to influence signs and symptoms in many cases, to improve acute virus infections and to cure fourteen cases of acute chorea. The subjective and clinical improvements were accompanied by a reduction in the percentage of mononuclear cells, by a shift from polymorphonuclear leucocytes to a preponderance of lymphocytes during the drainage. No signs and symptoms of increased intracranial pressure were observed, although each venoclysis is accompanied by a striking increase in spinal fluid output, which signifies that no obstruction must interfere with the free drainage. The absence of a rise in the venous pressure indicates that forced spinal drainage does not overload the circulatory system by the excessive intravenous fluid administration.

These statements of Kubie, Retan, Fremont-Smith and others are in agreement with our knowledge from the classic studies of Weed[9] and his coworkers. Hypotonic solutions given intravenously increase the activity of hypertrophic choroid cells and produce abnormal amounts of tissue fluids in the central nervous system; the latter pass into dilated cellular spaces (perineural interspaces) and hence are drained along the perivascular tissue lymph channels into the subarachnoid system. During normal life the velocity of this circulation is rather inactive, but, in pathalogic conditions, excessive fluid can be either forced or drawn into these pathways causing quite rapidly an increase in the bulk of the brain (hydrosis cerebri), and clinically signs of increased intracranial pressure. Hassin's histopathologic studies on the origin and on the escape of the cerebrospinal fluid support the theory of forced spinal drainage by stating: that the cerebrospinal fluid originates in the brain tissue, carries the waste products of the latter and discharges by way of the perivascular channels into the ventricles and the subarachnoid space.

THE PROCEDURE

We demonstrate to you the mechanism of the procedure on a coarse sketch. The diagram shows on the left an arterio-venous capillary loop with lymph or tissue fluid transudation at the left top and reabsorption along the descending branch.

At the arterial end, the intracapillary pressure is higher than the osmotic pressure of certain blood constituents causing transudation of serum with diffusible substances but retention of the non-diffusible colloids and crystalloids in the blood stream. When the intravascular pressure in the venous capillary loop drops below the osmotic tension of the non-diffusing colloids, lymph with diffusible substances are reabsorbed.



The mechanism of lymph production and absorption alters greatly in normal life and disease. More lymph or tissue fluid can be produced at the arterial end than can be absorbed at the venous end of a capillary system by:

(1) lowering the osmotic pressure of the blood: by dilution of the blood concentration especially with hypotonic solutions;

(2) raising the intravascular pressure of a capillary at the venous end: by venous obstruction or increased venous pulse pressure;

(3) increasing the pressure of the surrounding lymph or tissue fluid over the intravascular venous pressure: by raising metabolism and oxidation in the tissues, the effect or tension of their colloids will be multiplied.

The knowledge that the intracranial pressure is always higher than the atmospheric pressure explains the difference of the tissue lymph production in the central nervous system from the rest of the body. The higher intracranial pressure inhibits an excessive production of transudating tissue fluid at the arterial end but increases the reabsorption at the venous end by an alteration of the intravascular pressure in all blood vessels of the central nervous system.

The permanent lakes or accumulation of tissue fluid in and around the cerebrospinal system are produced mostly by the choroid plexus and only to a minor degree by the capillary transudation. These lakes and the pericellular fluid drain into patent perineural tissue spaces which communicate with the perivascular spaces of Virchow-Robin and discharge subsequently into the subarachnoid space. The drawing on the right demonstrates this mode of reabsorption and elimination.)

We have modified Retan's technic as we consider his prolonged continuous drainage with the lumbar puncture needle in place as too strenuous and dangerous for the patient. Therefore, we hasten the lowering of the osmotic pressure in the blood vessels and the greater production of tissue fluid by a lesser concentration of sodium chloride solution, naturally after having tested the fragility of the red cells. 0.225 per cent concentration of sodium chloride solution in amounts from 800 to 1400 c. c. has been effective in most of the treatments. We are recommending the following method: The patient is turned either on the right or left side with the corresponding upper extremity extended and prepared for the intravenous injection, while the back is arched and prepared for a lumbar puncture. Hypotonic saline is given intravenously, starting with 1000 c. c. of a 0.45 per cent solution and using 0.225 per cent solution in subsequent drainages. We have found that the rate of injection should never exceed 20 c. c. per minute. As soon as the venoclysis is started, a lumbar puncture is performed, the pressure is recorded, and the spinal fluid allowed to drain freely. Usually we notice that after 30 to 50 c. c. of the spinal fluid is withdrawn, the pressure is markedly reduced and at times the fluid ceases to flow entirely. The stylet is then inserted into the lumbar puncture needle, and, after waiting for five to ten minutes, the fluid will flow again. The amount of hypotonic saline given and the corresponding spinal fluid withdrawn will be shown later. The whole procedure lasts from one to two hours, depending on the amount of saline that is given. We have observed no serious effects either during the

procedure or afterwards. At times, especially if the spinal fluid is allowed to drain too rapidly, the patient will complain of headache. If that is encountered, the headaches can be relieved by inserting the stylet and waiting for a few minutes until a higher cerebrospinal fluid pressure is re-established. We have allowed some of our patients to get up and walk about from two to four hours after the forced drainage without encountering any ill effects. The surprising observation was the fact that these patients did not complain of headaces after walking about, even though in some cases as much as 80 to 120 c. c. of spinal fluid were withdrawn.

We have measured the intake and output on some of our cases for forty-eight hours after the drainage, and found that a good share of the hypotonic saline is excreted through the kidneys.

The following chart will demonstrate the type of disorder, the amounts of venoclysis and of drained fluid, and the observations of the treated cases.

FORCED DRAINAGE OF C. N. S.

DIAGNOSIS	NO. OF DR.	AMOUNT GIVEN	SP. FL. OUT	COMMENT
TABOPARESIS (OPTIC ATROPHY)	5	A) 625 C.C. OF .45 B) 1000 C.C. OF .45 C) 1000 C.C. OF .225 D) 1500 C.C. OF .225 E) 2000 C.C. OF .225	A) 65 C.C. B) 105 C.C. C) 80 C.C. D) 95 C.C. E) 110 C.C.	NO IMPROVEMENT.
M. SCL. (PARESTH++)	3	A) 1000 C.C. OF .45 B) 1000 C.C. OF .45 C) 1000 C.C. OF .225	A) 70 C.C. B) 45 C.C. C) 75 C.C.	NO IMPROVEMENT.
CHRON. ENCEPH. (P.S. TREM ++)	1	1000 C.C. OF .45	60 C.C.	NO IMPROVEMENT.
M. SCL. (SPINAL TYPE)	1	1000 C.C. OF .45	50 C.C.	NO IMPROVEMENT.
CHRON. ENCEPH. (P.S.)	2	A) 1000 C.C. OF .45 B) 1000 C.C. OF .225	A) 60 C.C. B) 70 C.C.	TREMORS MUCH LESS, GEN. BETTER
POST INFECTIOUS CORTIC. ATROPHY	2	A) 1000 C.C. OF .45 B) 1000 C.C. OF .225	A) 65 C.C. B) 75 C.C.	GENERALLY BETTER. HEADACHES GONE.
INF. MYELITIS	3	A) 1000 C.C. OF .45 B) 1000 C.C. OF .225 C) 1000 C.C. OF .45	A) 70 C.C. B) 80 C.C. C) 80 C.C.	GRADUAL IMPROVEMENT
CEREBELLAR CYST	1	1000 C.C. OF .45	75 C.C.	NO IMPROVEMENT.
SUBACUTE CHOREA	3	A) 1000 C.C. OF .45 B) 1500 C.C. OF .225 C) 1350 C.C. OF .225	A) 80 C.C. B) 85 C.C. C) 95 C.C.	MARKED IMPROVEMENT. ALL GONE
C.N.S. LUES INVOLUTION RHOMISM	1	1000 C.C. OF .45 WITH TREP. GMS. III	110 C.C.	NO IMPROVEMENT.
SUBACUTE ENCEPH. (S.T. PILLIT)	1	950 C.C. OF .45	95 C.C.	[illegible]
SUBACUTE ENCEPH.	1	1000 C.C. OF .45	85 C.C.	NO IMPROVEMENT
CHRON. ENCEPH.	1	1000 C.C. OF .45	70 C.C.	NO IMPROVEMENT.
HEADACHES (ETIOLOGY?)	1	1000 C.C. OF .45	80 C.C.	NO IMPROVEMENT.
TBC MENINGITIS	3	A) 1000 C.C. OF .45 B) 1000 C.C. OF .45 C) 800 C.C. OF .45	A) 125 C.C. B) 110 C.C. C) 150 C.C.	EXPIRED.
CHRON. ENCEPH. (P.S.)	2	A) 1500 C.C. .45 B) 1500 C.C. OF .45	A) 95 C.C. B) 115 C.C.	TREMORS LESS
CHRON. ENCEPH. (P.S.)	1	1000 C.C. OF .45	80 C.C.	SLIGHT IMPROVEMENT.

The present results do not permit definite deductions as to the value of the forced spinal drainage by our method. Beneficial modifications in the course of infections have been observed in one case of acute bulbar encephalitis and myelitis and in chronic encephalitis. A practical application of the "small forced spinal drainage" has avoided and eliminated post-punctural complaints following diagnostic lumbar punctures. We give 50 c. c. of hypotonic sodium chloride solution intravenously prior to the lumbar tap and we do not have to keep our patients in bed for twenty-four hours. We have not had any complaints of headaches, dizziness or nausea after the puncture when the "small forced spinal" is employed[8].

CONCLUSIONS

Forced spinal drainage is based on anatomic and physiologic facts; its effective theory is established by experimental and clinical data. Individual considerations must be given to each case and the procedure must be carried out as an operation. Contraindications are cardiovascular-renal diseases, encysted or encapsulated fluid accumulation in brain and cord, and acute or chronic systemic infections elsewhere in the body.

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Pathological Conditions of the Female Urethra*

By CYRIL G. RICHARDS, M. D.
Kenosha

THE urethra of the adult female presents many pathological conditions some of which are easily identified in the course of general examination, and others that require painstaking study before diagnosis is made. The symptoms of frequency and dysuria are expressions of inflammatory conditions of the urethra and bladder and common to both. Therefore, it becomes necessary to investigate every portion of these two organs before the actual location of the disease process can be determined. The urine in many instances shows no abnormal findings, and hence the urethra is either overlooked or never considered as a cause of disease. It has been estimated that 30% of female patients presenting urinary symptoms the cause can be found in the urethra. These patients go on for long periods of time being treated with bladder sedatives and irrigations without relief, while treatment properly directed to the urethra results in remarkable relief in their symptoms. In 1911 Hunner described the syndrome of referred renal pain, bladder irritability and frequency of urination without abnormal urinary findings which he attributed to ureteral stricture which could only be demonstrated by ureteral sounds, and reported a large series of cases that were either cured or considerably benefited by dilatation. I cite this reference because the clinical picture of urethral disease simulates that described by Hunner and designated ureteral stricture. Since then there has appeared in literature, from time to time, articles calling attention to pathological conditions of the female urethra that remain long unrecognized, so that now the female urethra has assumed an important position in the field of urology.

URETHRITIS

Urethritis is an inflammation of the urethra. Infections are of two types: the specific, due to the gonococcus, and nonspecific. The majority of writers, notably Folsom, Aromond, believe that there are two separate and distinct types of chronic nonspecific urethritis. One an acute inflammatory entity; the other a passive congestion affecting unmarried females and related to the sexual problem. It has been my experience that most of these cases showed definite inflammatory changes in the cervix, and that there is a distinct relation between the two, one requiring as much attention as the other if success is to be attained. This condition, is, perhaps, the most common ailment affecting women, occurring at any age, producing symptoms all out of proportion to the extent of the lesion and the clinical findings in the urine. The symptoms are frequency and dysuria, occasionally referred pain to the bladder and sometimes the thighs. The frequency occurs usually during the busiest part of the day, the early morning, and worse on days in which they are unusually active. Lying down diminishes the number of times of urinary efforts. I had one patient who sat on the toilet all morning passing only a few drops at a time and described her sensations as "each drop a coal of fire." The diagnosis is made from the history of recurrent attacks of bladder distress, the absence of cellular elements in the urine and inspection of the urethra with a cystourethroscope or urethroscope alone. Sometimes the passing of a catheter will give information because of the severe pain that its passage causes. The mucous membrane of the posterior portion of the urethra presents a granular appearance with or without polypoid masses. The best description being given by Folsom in his paper read before the section of urology at the 82nd annual meeting of the American Medical Association where he presented a most comprehensive treatise on this subject. The treatment is first to relieve these patients of the distress by the administration of sandalwood oil which in my experience has pro-

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duced the best results, regulation of the diet, elimination of the condiments and highly seasoned foods, and total abstinence from alcohol in any form. The real relief is obtained by treatment directed to the lesions in the urethra. Topical applications through the urethroscope of a 10% silver nitrate solution has obtained the best results in my hands. This is done once a week, and it is truly remarkable the relief obtained. These patients come back in a few days with the report that the frequency and dysuria have been markedly relieved, and they are entirely different people. This is carried on for two or three treatments when the urinary symptoms will be almost normal. They should be kept under observation for some time because of the possibility of recurrence.

Recently J. A. Emmett of The Mayo Clinic has recommended the application of heat to the urethral mucosa by the Elliot urethral applicator. He begins cautiously with a temperature not to exceed 125 degrees F. for thirty minutes, and, if tolerated, the succeeding treatments are administered for one hour at 126–127 degrees F. and given daily for four or six times. He reports a series of eighteen patients who have been so treated with favorable results. He makes no specific claim for this method other than another promising form of therapy in these cases. However, this requires trained personnel and some experience with the Elliot machine and is not to be recommended to the general practitioner because of the danger of burns.

Mrs. R. J. B., age 39. First seen seven years ago because of pain in the left lower quadrant radiating to the groin, associated with marked frequency of urination and dysuria. Complete urological survey failed to show any renal or bladder pathololgy, but the patient obtained complete relief for two years after the cystoscopic examination. Two years ago she again began to suffer as she had previously. For economic reasons she took all the advertised remedies without any improvement. This last spring she again returned with all the symptoms intensified. Again subjected her to a complete cystoscopic examination with pyelograms, etc., but, in addition, I closely scrutinized the urethra and found exactly the pathological picture as I have just described: A granular urethritis. Treatment directed to the urethra has resulted in the transformation from a nervous, irritable woman who spent most of her time on a toilet seat, to one who can now attend the theater and take long automobile rides without discomfort.

Mrs. H. B., age 34, married. Seen first October, 1934. History of so-called "bladder trouble", five years' duration. First began with acute pain when she urinated which has increased steadily, so that at the present time of examination, she voided every half hour during the day and six to eight times at night. She gave no history of renal colic or hematuria. For the past two or three months has spent a good deal of time in bed because of amount of pain she suffers. She had a subtotal hysterectomy three years ago after three years of treatment for cystitis. Complete urological survey fails to show any pathology in the kidneys or bladder except for granular, reddened area of inflammation in the trigon which seems to be an extension from a similar area in the urethra and internal sphincter. The capacity of the bladder was only ½ oz., so that it was necessary to administer an anesthetic to satisfactorily make an examination. In this instance the granular area in the urethra was fulgurated with the Bugbee electrode. After the first treatment bladder capacity increased to 6 oz., and she could retain her urine for two hours, and the night urination lessened about 50%. Following this it was necessary to again treat the patient in about three weeks so that at the present time patient considers herself practically normal.

The above two cases illustrate the remarkable amelioration of symptoms by appropriate treatment.

STRICTURE

Stricture of the female urethra is not as rare a lesion as generally supposed and often overlooked in the clinical examination of patients with urinary symptoms. Stevens reports 30% of female patients with urethral stricture in a series of 633 women presenting themselves with urinary symptoms. Stricture might range anywhere from the filiform type to a narrowing of the urethral calibre below 20 French. The diagnosis is made by the passing of olivary bougies and noting the size that produces a definite hang. Strictures may be classified as congenital or acquired. The congenital type may be so complete as to prevent complete emptying of the bladder. When this occurs and is present for a long period of time infection takes place. As a result of infection the renal function diminishes and may even go on to a complete loss if the obstruction is not relieved.

URETHRAL CARUNCLE

Urethral caruncle is one of the most common lesions of the urethra and easily indentified. It occurs usually in the middle life and is located at the external meatus having a raspberry-like appearance; may be sessile or pedunculated. They are very sensitive to touch, bleed easily, and give rise to symptoms of pain, frequency and burning on urination. Occasionally the pedunculated type will cause obstructive symptoms and severe hemorrhage. Sections of these tumors should always be examined histologically to rule out malignancy.

SKENITIS

This is an inflammation of the two paraurethral ducts situated just inside the urethral meatus, and is often the seat of inflammation of a non-specific or gonorrheal character. In gonorrhea they harbor infection long after the disease process has disappeared from the cervix and is responsible for most of the recurrent infections. Occasionally abscess formation results leaving a chronic site of infection which is only cured by the actual destruction of the gland itself by the cautery or repeated injections of 95% carbolic acid followed by neutralization of alcohol.

TUMORS

Tumors of the urethra are either malignant or benign. The malignant type is the squamous cell carcinoma and adenocarcinoma. Tumors actually arising from the urethra itself are rare, but the most common type that is seen is that type of squamous cell carcinoma which has extended from the vulvo-vaginal mucous membrane and involved the urethra. Hematuria and obstructive symptoms bring the patient to the physician, and the burden of responsibility rests on the examining physician to early recognize these lesions.

DIVERTICULI

Diverticuli of the female urethra are comparatively rare although McNally and the American Journal of Surgery report six cases which have come under their observation in the past three years. There are small pouches usually located in the posterior part of the urethra which may be either congenital or acquired. The most common cause of acquired form is the rupture of a suburethral cyst or abscess, and injuries following childbirth. These sacs never completely empty themselves during act of micturition and become infected. As soon as infection occurs symptoms of frequency and burning ensue, and sometimes patient will complain of a swelling which can be felt per vagina. Diagnosis is made by the examination of the urethra with the urethroscope or injecting the urethra with some opaque medium either silver iodide or skiodan solution which outlines the sac. The only satisfactory treatment is surgical excision of the entire sac and indwelling bladder catheter until urethra is healed.

The Decline of Diphtheria in a Fever Hospital

By MAX J. FOX, M. D.

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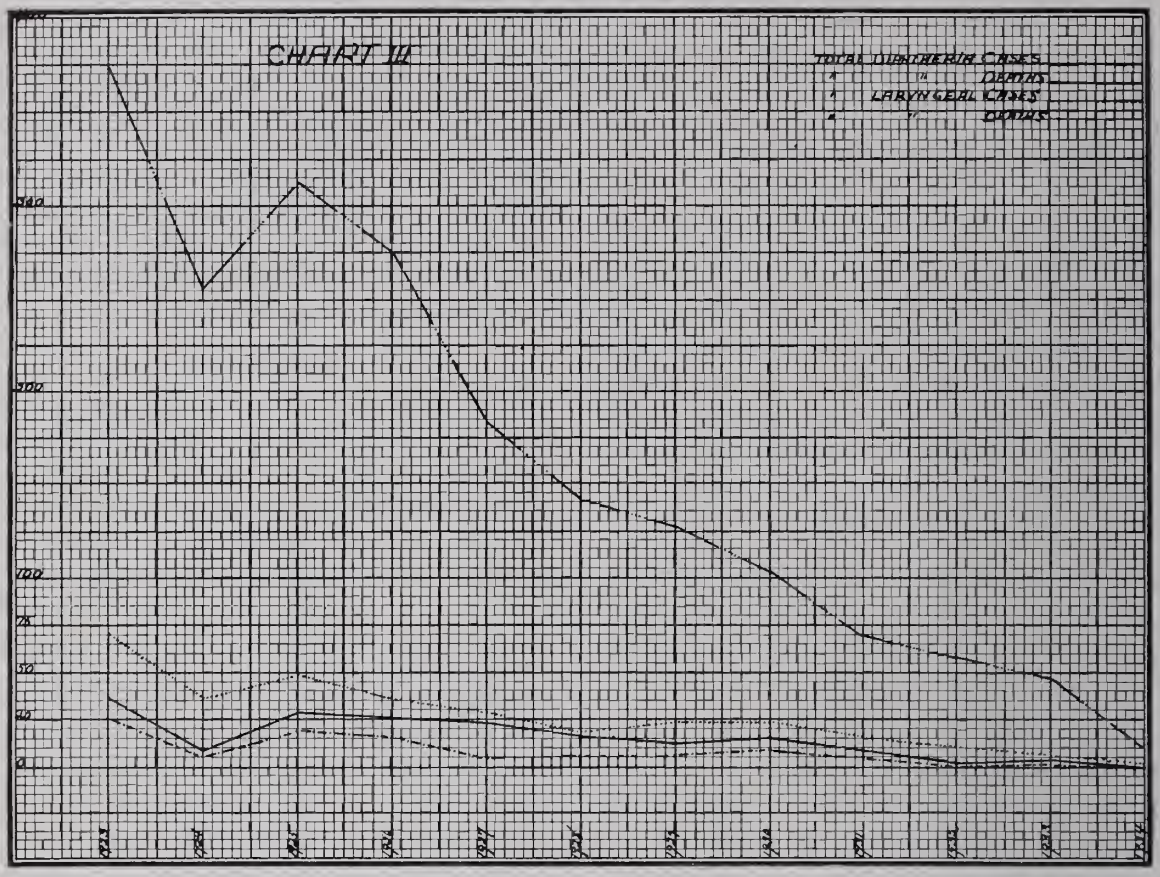
THE purpose of this paper is to call the attention of the medical profession, through somewhat extensive accurate local observations, to the fact that diphtheria is rapidly following in the path of gradual extermination taken by variola. The revolution actually brought about in the decrease of this disease can perhaps be best appreciated by one associated with a fever hospital. While only a few years ago it was found necessary, in the hospital with which I am connected, to maintain a ward for the sole care of diphtheria, it is at the present time a curiosity to see in our wards more than one true case of it a month. The many scientists of the past who have investigated the cause, the therapeutists who have given humanity the specific serum, the investigators who



have prepared the active immunization, the public health workers, who, through the stimulus of their educational programs, are continuously hastening the elimination of this ailment—all of these deserve to be eulogized for their part in the salvation of the public from the destruction which in the past has marked the course of this disease. The question has been raised whether diphtheria is being stamped out through these prophylactic efforts, or whether it is not dying its own natural death. It has been said that the saturation (Durchsauchung) of a people with any disease due to infection eventually causes an attenuation of that disease. While this may be generally true, the application of this argument to the disappearance of diphtheria may be refuted by the fact that to this day we are confronted with sporadic malignant cases of diphtheria which demand most vigorous specific therapy.

During the past twelve years, I have been privileged to care for 2,599 cases of diphtheria and diphtheria carriers at the Isolation Hospital of the Milwaukee Health Department. At the beginning of this experience, we had an entire half of the hospital devoted to the care of patients ill with this disease. Chart No. 3 presents the interesting curve of the number of diphtheria cases at our hospital. With each succeeding year there has been a decided drop in the number of cases until finally in 1934 it reached the average of less than twenty cases per year. During the past decade, we have been able to transfer our diphtheria beds to other services, resulting in an economic saving unknown before. Chart No. 3 also shows a drop in the laryngeal cases. Today the emergency equipment for laryngeal cases has shared the same fate as the other paraphernalia for the handling of this disease. The falling off in the number of laryngeal cases has almost made the shelving of our O'Dwyer intubation outfits possible with little feeling of insecurity. These emergency cases now rarely occur, so rarely in fact that the opportunity for the visualization of the technique of intubation before medical students for instructive purpose has become

DIPHTHERIA 1923 - 1934

CHART I.

YEARS	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	
Deaths under 24 hours	12	3	10	7	10	7	6	10	4	[illegible]	2	0	73
Deaths over 24 hours	25	6	18	19	13	9	7	5	4	0	1	0	107
CLINICAL TYPES: Fulminating	28	9	17	8	20	14	14	12	7	[illegible]	12	0	133
Faucial	193	161	189	196	1[illegible]3	94	74	58	39	27	33	6	1193
Pharyngeal	0	0	0	1	0	0	0	0	0	3	0	2	6
Nasal	6	8	1	[illegible]	4	7	5	6	[illegible]	1	[illegible]	0	50
Ear	0	0	0	0	1	0	0	0	0	0	0	0	1
Naso-Pharyngeal	76	41	58	19	4	5	1	2	1	11	1	0	219
Naso-Faucial	0	1	0	6	5	4	5	2	0	[illegible]	3	0	29
Laryngeal	70	37	48	36	28	17	24	24	16	11	6	2	319
Carriers or Accidental Positives	19	56	37	185	155	45	65	27	28	13	19	0	649
Total Cases Without Carriers	373	257	313	275	184	141	178	104	65	58	47	10	1950
Total Cases	392	313	350	460	339	186	188	131	93	71	66	10	2599
Total Deaths	37	9	28	26	23	16	13	15	8	[illegible]	3	0	180
Death Rate Percent Without Carriers	9.43	2.9	8	5.65	6.77	8.6	6.9	11.4	8.6	2.8	2.5	6.3	9.2
Death Rate Percent	9.91	3.5	8.94	9.43	12.[illegible]	11.3	10.1	14.[illegible]	12.[illegible]	2.5	4.5	6.9	6.9

rare indeed. And what a change has come with reference to the horror which all mothers and fathers of small children formerly had of "membranous croup"! One surely cannot attribute this to better diagnosis, but rather to the remarkable result of active immunization which has been propagandized by the American Medical Association, state, county, and local medical units, by means of radio, press, and educational programs.

Chart No. 1, 1923 to 1934, inclusive, shows 2,599 cases of which 649 were errors in diagnosis, with positive culture reports. Most of them were accompanied by mild pathological conditions or no findings whatsoever in the throat, but had a positive culture from outside laboratory or private physicians. The diphtheria carriers were re-cultured daily for one week and if the culture remained positive a virulence guinea pig test was made for ascertaining the ability of the organism to produce toxin. Diphtheria carriers are not truly named if negative cultures occur after a few successive examinations. To the contrary, they must be called accidental findings, and merit laboratory tests to prove their avirulence. In true carriers occurring in convalescing individuals, or those about to contract the illness, or those with a negative Schick test, it became necessary to do tonsillectomies or use a strong coagulant or cauterizing material on the mucous membrane, where the positive cultures were found. The 1,960 cases of diphtheria had a mortality rate of 6.9%. This compares most favorably with the records of other fever hospitals. The fulminating cases totaled 133 or 6.8%. Included in our fulminating cases were those that became malignant by neglect. They were apparently treated as a benign throat infection and in most instances the physicians were awaiting confirmation of the diagnosis by laboratory procedure. It is a sad and shocking experience when cases are brought to the contagious disease hospital too late. Hospital physicians are powerless when patients come in with an overwhelming diphtheria toxemia, with a membrane of enormous extension, with bull neck and myocardial involvement, and with death occurring immediately or shortly after entrance, with not the slightest possibility of any beneficial result from the administration of serum. The faucial diphtheria totaled 1,193 cases and showed the largest percentage of complications. The complications totaled 211 or 1.7%. The largest number of complications were the toxic myocardosis. It is my opinion that every true case of diphtheria has some myocardial degeneration, but not all cases present clinical symptoms or findings. During convalescence myocardial evidences could be attributed to the effort syndromes of:

a. allowing the patient to attend to his own hygienic needs,

b. over-stimulation by too hot or too cold bathing,

c. dietary disturbances brought on by large bulky meals causing gastro-intestinal upsets and resulting in cardiac over-taxation.

It may be fitting at this point to mention that in the treatment of myocarditis we dispensed with the stimulant of strychnine, the danger of digitalis and atropine. We used throughout hypertonic glucose solution intravenously. Fifty to one hundred c.c. of 20% glucose twice daily was most beneficial in practically every case.

Myocardial strain was evidenced by bradycardia, or tachycardia, drop in blood pressure particularly the diastolic reading. Syncope was a forewarning of cardiac embarrassment, particularly on the right side of the heart. Palatinal paralysis, shortly after entrance to the hospital, was a significant finding suggesting cardiac involvement. The

complaints of lack of accommodation while reading, blurring, and double vision were signs of ciliary muscle paralysis; coughing, difficulty in deglutition, and gulping of boli revealed pharyngeal paralysis. Apneic disturbances and loss of costal arching suggested intercostal or diaphragmatic paralysis. Extreme pain in the extremities was significant of peripheral neuritis. Pallor, oedema, and distention of the abdomen with tympanitis and smoky urine were evidences of nephritic complications.

COMPLICATIONS

In most instances, after the onset of this illness, the resultant complications were dependent upon the degree of susceptibility of the individual, the virulence of the organism, and the length of time before therapy was instituted. The three toxic elements of diphtheria,

1. toxoid,
2. toxone,
3. toxin,

have had an opportunity to associate themselves with parenchyma of the body.

The above complications will occur regardless of how much therapy is given after permanent fixation, especially after fixation in the central nervous system. Successful treatment in a single isolated case should not be accepted as a criterion of the procedure to be carried out in avoiding these complications. It reverts again to the virulence of the organism, the susceptibility of the individual and the time element before recognition.

It has been our experience to find the following types of cases brought into the hospital as diphtheria, which proved otherwise upon further observation: Follicular tonsillitis, peritonsillitis, peritonsillar abscesses, herpes of the tonsils, syphilis—primary chancres and secondary throat involvement, influenzal involvement, Vincent's angina, infectious mononucleosis, myelogenous and lymphatic leukemia; and also four cases of agranulocytosis.

The agranulocytic anginas, no doubt, years ago were considered as a fulminating diphtheria. The failure of antitoxin to cure this bone marrow disease is now easily understood. Of our four patients with agranulocytosis, one died and three recovered, with the use of blood transfusions, pentnucleotide and yellow bone marrow therapy.

LARYNGEAL TYPE

Chart No. 2 pertaining to laryngeal diphtheria totaled 319 cases or 16% of the 1,950 cases of diphtheria. One hundred and ten did not require intubation, while 209 were intubated. The death rate was 31.69%. This mortality rate included 42 cases that died on entrance or within twenty-four hours.

These deaths were no reflection on the efficacy of specific treatment, yet it is necessary to include these moribund cases in the hospital records. The ordinary death rate exclusive of those who died on entrance was 21.3%. This death rate compares most favorably to the reports as given by Hoyne[1]—"Some of the remarkable results reported for intubated patients in private practice must be totally beyond the comprehension of anyone possessing an extensive hospital experience in this type of disease. When one hears of a mortality of but 14% for tube patients treated in their homes, and then on the other hand learns that such an institution as the Willard Parker Hospital in New York has had an average mortality of 57.87%, (1901-1905) for 588 cases, one can scarcely help wonder whether a large number of the recoveries in the home did not occur in spite of intubation and not because of it. At the Philadelphia Municipal Contagious Disease Hospital, the average yearly mortality from 1897 to 1903 was 59.23%; and at the Boston City Hospital from 1895 to 1903, it averaged 59.54%."

Our percentage of 31.69% is highly gratifying and may well be considered due to the concerted effort in our institution for handling this type of disease. We developed a fixed laryngeal diphtheria personnel with a supervisor who familiarized herself with the demands of intubation, extubation and the important findings in a convalescent case. This type of service permitted our attending medical men to prevent unexpected developments and offered few opportunities for negligence in the after care. A changing in-

LARYNGEAL DIPHTHERIA

CHART II.	NON-INTUBATED													INTUBATED												TOTAL NON-INTUBATED AND INTUBATED CASES
YEAR	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	TOTAL	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	TOTAL	
PRIMARY	21	16	11	2	7	3	10	6	5	6	1	2	90	42	17	34	26	18	13	11	17	10	1	4	0	193	283
SECONDARY	2	3	0	5	1	1	2	1	1	3	1	0	20	5	1	3	3	2	0	1	0	0	1	0	0	16	36
TOTAL CASES	23	19	11	7	8	4	12	7	6	9	2	2	110	47	18	37	29	20	13	12	17	10	2	4	0	209	319
RECOV. 10 months to 5 yrs.	9	7	4	0	2	0	5	2	1	4	0	0	34	14	5	9	5	6	4	3	5	2	1	1	0	55	89
RECOV. 5 years to 10 years	9	10	5	4	5	1	5	4	4	3	1	2	53	10	6	6	11	9	4	5	4	3	0	1	0	57	110
RECOV. 10 years to 20 years	0	1	1	0	1	0	2	0	0	2	1	0	8	1	0	2	0	0	0	0	0	1	0	0	0	4	12
RECOV. 20 years and over	1	1	1	0	0	2	0	0	0	0	0	0	5	0	1	1	0	0	0	0	0	0	0	0	0	2	7
DEATHS 10 months to 5 years	3	0	0	0	0	0	0	1	1	0	0	0	5	15	2	17	11	2	2	3	5	3	0	2	0	62	67
DEATHS 5 years to 10 years	0	0	0	1	0	0	0	0	0	0	0	0	1	6	4	1	2	2	2	3	2	1	1	0	0	24	25
DEATHS 10 years to 20 years	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	2
DEATHS 20 years and over	0	0	0	2	0	1	0	0	0	0	0	0	3	1	0	1	0	1	1	0	0	0	0	0	0	4	7
Under 24 hrs.	2	0	0	2	0	0	0	1	1	0	0	0	6	5	2	8	3	2	3	2	7	2	1	1	0	36	42
Over 24 hrs.	2	0	0	1	0	1	0	0	0	0	0	0	4	17	4	11	10	3	2	4	1	2	0	1	0	55	59
TOTAL	4	0	0	3	0	1	0	1	1	0	0	0	10	22	6	19	13	5	5	6	8	4	1	2	0	91	101
TOXIN USED Highest No. per patient														12	4	8	9	8	8	10	16	12	2	4	0		
TOXIN USED Average No. per patient														3.1	1.1	2.3	1.9	2.9	1.9	1.6	2.8	3.4	1.3	1.6	0		
Time in Days 1st Extubation														4	4	4	4	4	4	4	4	4	4	4	0		
Death Rate Perc.	17.4	0	0	42.8	0	25	0	14.3	16.6	0	0	0	9.1	44.4	33.3	51.3	44.8	25	38.4	50	47	40	50	50	0	43.5	31.69
Death Rate Perc. after 24 hrs.	8.7	0	0	14.2	0	25	0	0	0	0	0	0		36.1	22.2	29.7	34.4	15	15.3	33.3	58	20	0	25	0	36.5	21.3
Initial Dose of Antitoxin	40,000 - 60,000 UNITS													60,000 - 80,000 UNITS													

terne, resident or attending physician service will exhibit a greater number of deaths than those occurring in our hospital. Chart No. 3 offers testimony to the concentrated attention we gave this particular phase of diphtheria.

The laryngeal diphtheria cases presented errors in diagnosis of the following types:

Simple catarrhal croup, retropharyngeal abscess, laryngismus stridulus, congenital relaxed larynx, swallowing of foreign bodies lodging in the larynx or trachea, multiple papillomata or diverticula where immediate observation or the subsequent course showed the error in diagnosis.

The technique of intubating and extubating is acquired through personal instruction and by practicing on a cadaver until accuracy has been established. Perfect training in this manner is necessary before any one can be permitted to attempt this operation on a living individual. Like all fever hospitals, we have had some failures in intubation resulting in the insertion of the tube into the esophagus, or forceful entrance through a stenosis, with resultant deaths or the sequelae of a post-laryngeal ulceration. Laryngeal paralysis and chronic tube cases with negative diphtheria cultures were transferred to the Milwaukee Children's Hospital where test periods were carried out and in the re-occurrence of symptoms, laryngeal and bronchioscopic examinations were done to establish the cause. If there was a persistent ulceration or paralysis, tracheotomies were done to give the upper laryngo-tracheal passage complete rest and to establish restitution of its normal physiological function.

In some cases it is difficult to dispense with the tube and after several extubations and reintubations it is found that the interval in which the child can breathe without the tube becomes shorter and shorter. This subject has been studied by O'Dwyer, Rogers, Bokay, Gallatti, Ranke, and others and its pathology and treatment has widely varied views. It occurs in about 1% of intubations. Berg[2] classified the cases as follows:

1. Cases of prolonged stenosis in which the original condition which necessitated the

(Continued on page 244)

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« « « EDITORIALS » » »

The Prevention of Goiter in Wisconsin

APPRECIATING the fact that goiter is very prevalent in Wisconsin, the Council of the State Medical Society in 1935 appointed a Committee to determine certain facts regarding the incidence of goiter and to suggest plans for its eradication. The Committee conducted a survey in the schools of Madison, Fond du Lac, and Milwaukee and ascertained that a high percentage of the children of the state showed an abnormal disturbance of the thyroid gland. The conclusion of the Committee was that approximately one out of five of the more than half million children of the state were thus afflicted. Similar surveys conducted by state and national health authorities either in Wisconsin or in neighboring states show an even higher incidence of diseased thyroid glands. A survey at Merrill showed 98 per cent of the children to have goiter. In Minnesota 71 per cent of the girls 5 to 23 years of age showed evidence of goiter.

The Committee ascertained that in only about 10 counties adequate preventive measures are being carried out. These counties are Crawford, Brown, Kewaunee, Door, Iowa, Lincoln, Marinette, Florence, Sauk, and Winnebago. In certain sections of these counties the treatment is inadequate. In Marathon, Portage, Rock, Trempealeau, Jackson, and Buffalo, about 1 out of every 2 children appear to be receiving treatment; in Dodge about 1 out of 5; in Oneida, Vilas, Polk, and Richland about 1 out of 10; in Dane, Milwaukee, Kenosha, and Racine probably less than 5 per cent are receiving adequate treatment.

For years the State Board of Health and the individual physicians of the state have been attempting to eliminate goiter in this state. It has been a discouraging fight, and only by the united efforts of organized medicine can goiter be eradicated or even checked. Consequently, the Committee has been enlarged to include representation from the State Health Office and is now set out to unite the efforts of the profession through the county medical societies. It is desirable that the profession agrees on a few essential facts pertaining to goiter and that some simple plan of prevention be evolved that may be made effective for the entire state. It has appeared desirable that until further study has been made no such plan should be recommended to the society. This particularly concerns the question of iodized salt. The arguments pro and con on this subject

have been summarized by the Committee and have been forwarded to the secretary of each county society along with other data of interest on goiter.

The first request of your Committee is that each county society devote its March meeting to the subject of goiter with special emphasis on the question of prevention. Through these meetings it is hoped the entire membership may become acquainted with the immediate problems and develop some plans of action. Even in those counties where preventive measures are now in force it is desirable to see if such measures are adequate and are being correctly enforced. The Committee has in mind the use of iodized salt, the iodine content of which has been shown to vary from no iodine at all to a dosage sufficient to produce hyperthyroidism in adults. Also whether the older children are receiving sufficient iodine and whether or not thyroid, which may only be administered through the individual physician, is indicated. These and many other equally important questions should furnish adequate material for interesting programs.

The second request of the Committee is that a standing Committee of three be appointed by the president of each county society to study the incidence of goiter in the county and to confer with the State Committee in developing a general plan of prevention. What measure of success may be expected from the central committee will now largely depend upon the cooperation it receives from the officers of the county societies, and in turn upon the work of the standing committee in each county. This would appear to be too good an opportunity for us to thrust aside and turn over to the advocates of state medicine to solve. A. S. J.

Doctors and Hobbies

EVERYONE should have an avocation as well as a vocation. The "hobby exhibit" displayed at the last meeting of the State Medical Society was a most fortuitous affair. It proved to be one of the most popular and interesting exhibits of the meeting, and at the same time revealed much latent talent among our colleagues. We trust that it will be repeated each succeeding year, not only because of its interest but because of the inspiration it will create in others.

How hobbies? We mean, how is a hobby born? Personally, we believe they are for the most part temperamental reactions, yet they may be inspired by or receive direction through accident. The artistically inclined finds appeal in music, clay-modeling, drawing, painting, etc. The more practically inclined may turn to gardening, forestry, carpentry, and similar pursuits. The bibliophile may cross the path of some old book, and he is off to his hobby. One may contact the stamp collector, the autograph fiend, another interested in old coins, and his hobby is born.

Too many hobbies are seasonal, and thereby limit their usefulness. One can play golf but a few months in the year. All indoor hobbies, like all indoor sports, lack the health appeal of outdoor recreation. Therefore, the hobby of trees finds its place among the best from all angles. One knows the beauty of trees during nine months of the year; but when one studies their winter forms and habits one is thrilled with possibilities. They pull one into the open every month of the year. We find in their life course many analogies to the lives of humans; and they are always staunch friends. It is a well recognized fact that psychotics seldom possess a hobby which in their case could easily act both as a prophylactic and curative agent; so we substitute for their lack occupational therapy.

In a recent communication Clifford Beers, author of that classic, "A Mind That Found Itself," spoke of his hobby, painting; and related the wonderful things it had accomplished for him, "hoping that the near future may give him more leisure than he has had since 1908 when he decided to be a friend to the people who suffered the misfortune that fell so suddenly upon him, he expects to turn out a lot of canvases." His inspiration came from an extract from a book, "Amid These Storms," written by the Right Honorable Winston S. Churchill: "Buy a paint-box and have a try. If you need something to occupy your leisure, to

divert your mind from the daily round, to illuminate your holidays, do not be too ready to believe that you cannot find what you want here. . . We must not be too ambitious. We cannot aspire to masterpieces. We may content ourselves with a joyride in a paint-box. And for this Audacity is the only ticket. . . Joinery, chemistry, bookbinding, even brick laying—if one were interested in them and skilful at them—would give relief to the over-tired brain. But, best of all and easiest to procure are sketching and painting in all their forms. Painting is a companion with whom one may hope to walk a great part of life's journey. Muscles may relax, and feet and hands slow down. . . But painting is a friend who makes no undue demands, excites to no exhausting pursuits, keeps faithful pace even with feeble steps, and holds her canvas as a screen between us and the envious eye of Time or the surly advance of Decrepitude. . . Happy are the painters for they shall not be lonely. Light and color, peace and hope, will keep them company to the end, or almost to the end, of the day."

"Why Hobbies" is answered by this quotation. With our pets we find both physical and mental relaxation and surcease for the time being from all worries and problems. Surely there is no class of men requiring such relaxation more than the man of medicine. A. W. R.

Use Modern Methods

THOSE of us particularly interested in tuberculosis are wont to point with pride —yes, and even boast—about the remarkable and steady decline in the death rate of this onetime "Captain of the Men of Death." Twenty years ago 150,000 people died in the United States of this one disease; last year only 75,000 graves were filled by the victims of this "plague"—this in spite of the increase in population during the past two decades.

A reduction from 150,000 to 75,000 deaths within twenty years certainly presents an encouraging and gratifying picture but—wait a minute—is this the entire story? It is not. Upon closer examination it will be noted that several clouds cast disturbing shadows over the otherwise pleasant bit of scenery.

These clouds in our picture represent the fact that more than one half of these 75,000 deaths from tuberculosis occur between the ages of twenty and fifty—a time when life is most valuable—when life is most useful and when life is most precious. If we add to this the statement that many, many of these lives could be saved by earlier diagnoses, our picture, at first glance so alluring, loses much of its attractiveness.

In the treatment of pulmonary tuberculosis today, modern methods in the form of some type of collapse therapy—artificial pneumothorax, paralysis of the diaphragm or thoracoplasty—are used wherever tuberculosis is treated. Are we physicians who see these patients when they first complain of symptoms, using the modern methods in attempting to establish an early diagnosis of pulmonary tuberculosis?

A detailed, searching history followed by a careful physical examination, plus repeated sputum examinations, will go far to pick up many cases, but, if we aim to diagnose this serious disease in its incipiency, we must take advantage of all modern methods available. The use of the tuberculin test followed by a roentgenogram of the reactors, constitutes the only method by which small, early infiltrations can be found. The results obtained by the application of these methods to high school and college students in Wisconsin and throughout the country during the past few years leaves no doubt as to their value.

It is appreciated that the cost to the patient of an x-ray film prevents many physicians from asking for this valuable diagnostic aid, but if the tuberculin test is first used to eliminate tuberculosis as a probable cause of the symptoms, the number of cases calling for x-ray diagnosis will be materially diminished. Furthermore, it is sincerely hoped that the more frequent use of the chest film may reduce the cost to the patient so as to make it more available to greater numbers. O. L.

. . . . THE PRESIDENT'S PAGE . . . .

Two Suggestions

AS I HAVE repeatedly emphasized, both in these columns and elsewhere, under the changing conditions of modern life, and in order to meet the ever-present threat of state medicine, county medical societies everywhere have had to devote more and more time to the social aspect of medical practice. In former years, when a society met at irregular intervals or even at stated times, but then usually only for scientific discussions, a complement of officers consisting of a president, secretary-treasurer, and board of censors was amply sufficient. At the present time, however, it is necessary for the society to be in constant touch with the public, and to be functioning at all times. Such a need is to be met, and in many societies has been met, by the appointment of a standing Committee on Public Relations.

This committee, as its name implies, should represent the actual point of contact of the county society with the community at large. It should furnish the society's avenue of approach to legislative bodies, such as county boards and city councils; public health questions, tuberculosis and other clinic problems, seal sales, the auditing of bills for the care of the indigent, newspaper publicity,—in short, all questions having to do with the community at large should be under the general supervision of the Committee on Public Relations. At times, various special committees may be necessary to handle certain problems which may arise, but the activities of these special committees may well be correlated through the Committee on Public Relations. Naturally, all the work of the Committee must be subject to the advice and consent of the county society.

In view of its important function, it follows that the members of this committee should be chosen with great care, having in mind their special capabilities for the work. They should be men who have the interests of the county society and the medical profession in general at heart, men who are interested in preserving the private practice of medicine, men who will take the work seriously and devote to it the time necessary, even though this may occasionally call for some personal sacrifice. At least one member of the committee should be able to speak convincingly in public.

There is another standing committee which in my opinion would fulfill a useful function in most county societies, particularly in those in urban centers which have a fairly large membership. I refer to a Committee on Resolutions. Frequently, matters of importance come before county societies for action. In many cases, after a brief general discussion, usually by a few of the members, a vote is taken, and the question hurriedly disposed of. Often such action does not represent the mature judgment of the assembly, nor can it under such circumstances; later, the course taken is regretted, and cases are not unknown where the members of a society have put themselves in a very unfavorable light in the eyes of the public.

All this could be avoided by a Committee on Resolutions. When any question of importance came up in a general meeting of the society, the only action which would be necessary at that meeting would be to refer it to the Committee, which would then take it under advisement and endeavor to view the matter in all its implications; the Committee would likewise be open to suggestions and expressions of opinion from any of the members. If there was no urgency, at the next regular meeting, the Committee would bring in its report, together with its recommendations; such a report would furnish a basis for intelligent discussion, and the final action on any given measure would more nearly represent the considered opinion of the membership in general. If the question were urgent, even an hour's consideration by a Committee on Resolutions, with final action taken at the close of the meeting, would be better, I believe, than the usual procedure.

These suggestions are offered for your consideration.

Ralph M. Carter.

Society Proceedings

BROWN–KEWAUNEE–DOOR

A meeting of the Brown–Kewaunee–Door County Medical Society was held on Tuesday evening, February 18th, at the Northland Hotel. Dinner was served at six-thirty which was followed by a presentation of various collection and credit systems.

EAU CLAIRE–DUNN–PEPIN

A meeting of the Eau Claire–Dunn–Pepin County Medical Society was held on Monday, February 24th, at the Hotel Eau Claire, with a dinner at six-thirty p. m. The following program was presented:

"Ten Minutes of Medical News" by Dr. Garner Scullard, Eau Claire.

"Early Pulmonary Tuberculosis and its Diagnosis" by Dr. R. H. Stiehm, Madison.

"Acute Abdominal and Pelvic Emergencies" by Dr. E. L. Mason, Eau Claire.

FOND DU LAC

The Fond du Lac County Medical Society held its regular January meeting on Thursday, January 16th, at six-thirty p. m. at the Elks Club. Dr. William J. Bleckwenn, Madison, gave an interesting address on "Brain Injuries, Their Diagnosis and Treatment." Through the courtesy of the Winthrop Chemical Company, motion pictures of the following subjects were shown:

"Modern Methods of Anesthesia."

"Novocain Anesthesia in Obstetrics."

"Malaria."

On January 23rd, the Fond du Lac County Medical Society sponsored a dinner in honor of Dr. S. E. Gavin, President-elect of the State Medical Society. Addresses were given by members of the Society and guests to which Dr. Gavin responded. Several floral bouquets were presented to him. A. M. H.

MILWAUKEE

The February meeting of the Medical Society of Milwaukee County was held on February 14th at the Milwaukee Athletic Club.

Speakers on the program were the following:

Dr. Loyal Davis, Chicago, who spoke on "The Management of Craniocerebral Injuries."

Mr. J. G. Crownhart, Secretary, discussed "Your Practice and the Law."

OUTAGAMIE

Dr. William S. Middleton, Dean of the Medical School, University of Wisconsin, was the speaker before the February meeting of the Outagamie County Medical Society which was held on February 13th at the Conway Hotel, Appleton. The subject of his address was "Postoperative Pulmonary Complications."

ROCK

The following committees were appointed by President Willard Sumner of the Rock County Medical Society at the January meeting:

Medical Milk Commission: Drs. J. R. Harvey, Footville; F. B. Welch and Wayne A. Munn, Janesville.

Woman's Auxiliary: Drs. Jessie P. Allen, Beloit, and Frank W. Van Kirk, Janesville.

Insurance: Drs. T. J. Snodgrass, Janesville; H. E. Kasten, Beloit; and J. P. Guilfoyle, Evansville.

Outdoor Poor Relief: Drs. P. A. Fox, Beloit; W. T. Clark, Janesville; Willard Sumner, Edgerton; and W. O. Thomas, Clinton.

Public Health and Legislation: Drs. W. T. Clark, P. A. Fox and W. J. Allen, Beloit.

Rural Health: Drs. Richard Thayer and R. S. Vivian, Beloit; T. O. Nuzum and Carl N. Neupert of Janesville.

TREMPEALEAU–JACKSON–BUFFALO

Eighteen members of this Society met the latter part of January for a dinner at the City Restaurant at Whitehall, after which they adjourned to the MacCornack Clinic for their meeting.

Dr. R. L. MacCornack, President of the Society, presented a motion picture on the use of novocain in obstetrics.

Dr. H. A. Jegi of Galesville, Councilor of the seventh district, spoke on the work of the State Society. A general discussion completed the program.

WINNEBAGO

A dinner meeting of the Winnebago County Medical Society was held at the Hotel Raulf, Oshkosh, on January 23rd.

Dr. William S. Middleton, Dean of the Medical School, University of Wisconsin, presented a paper on "Non-Suppurative Chronic Arthritis."

NINTH COUNCILOR

The winter meeting of the Ninth Councilor District was held at Marshfield on Thursday afternoon and evening of February 20th. The meeting in the afternoon, which was held at St. Joseph's Hospital, had the following papers:

"Carcinoma of Antrum" by Dr. L. A. Copps, Marshfield.

"Trigeminal Neuralgia" by Dr. L. A. Copps.

"Hydronephrosis" by Dr. Harry Culver, Chicago.

"Toxemia of Pregnancy" by Dr. R. W. Roethke, Milwaukee.

"Rheumatic Heart Disease" by Dr. A. J. Patek, Milwaukee.

"Myocarditis" by Dr. A. J. Patek, Milwaukee.

Following dinner at Hotel Charles, the following speakers presented their talks:

"Coronary Disease" by Dr. A. J. Patek.

"Borderline Problems in Diagnostic Urology" by Dr. Harry Culver.

"Demonstration of Use of Forceps" by Dr. R. W. Roethke.

MILWAUKEE ACADEMY OF MEDICINE

Dr. Arthur W. Rogers, Oconomowoc, was elected President of the Milwaukee Academy of Medicine at the Academy's annual dinner which was held at the University Club in January. Dr. H. C. Schumm of Milwaukee was chosen President-elect. Other officers elected were: Dr. F. A. Stratton, Milwaukee, Vice-president; Dr. T. L. Squier, Secretary; Dr. John J. Pink, Treasurer, and Drs. W. P. Blount, W. J. Egan, F. W. Mackoy, J. O. Dieterle, E. W. Miller, F. D. Murphy and William Jermain, Councilors.

Dr. Ralph P. Sproule, retiring President, reported that refinancing of the Academy's debt in 1935 had reduced it from $80,000 to $22,000.

At the February meeting of the Academy, Dr. R. C. Warner spoke on "Neuroretinitis Following Tuberculin Testing," and Professor E. B. Hart of the University of Wisconsin discussed "Conditions Affecting the Nutritional Value of Milk."

MILWAUKEE GASTROENTEROLOGICAL SOCIETY

The Milwaukee Gastroenterological Society was organized in January, 1936, with the following officers: President, Dr. William Ackerman; Vice-President, Dr. Frank W. Mackoy; Secretary-Treasurer, Dr. Michael W. Shutkin.

MILWAUKEE NEURO-PSYCHIATRIC

At the January meeting of the Milwaukee Neuro-Psychiatric Society held at the University Club on the 24th, Dr. Eben J. Carey, Dean of Marquette University School of Medicine, was the principal speaker. His subject was "The Wave Mechanics of Muscle Motion."

The February meeting of the Society was held on the 27th at Sacred Heart Sanitarium. The program was composed of the following papers:

"The Wave Mechanics of Muscle Motion" by Dr. Eben J. Carey.

"Pathological Report of a Case of Meningoencephalomyelitis" by Dr. Richard Richter.

MILWAUKEE OTO-OPHTHALMIC

At the annual meeting of the Milwaukee Oto-Ophthalmic Society held at the University Club on January 14th, the following officers were elected for 1936: President, Dr. Hilmar G. Martin; Vice-President, Dr. Thomas A. Judge; Secretary-Treasurer, Dr. Herbert G. Schmidt; Executive Council, Drs. J. J. Brook, T. A. Judge, F. H. Haessler, Edwin Bach, H. G. Schmidt and H. G. Martin.

Dr. A. Kovacs was the guest speaker. The subject of his illustrated talk was "Plastic Surgery of the Nose."

The February meeting of this Society was held at the University Club on Tuesday, February 11th. Following the dinner, two papers were presented:

"Upper Respiratory Infections" by Dr. Julian Y. Malone, Milwaukee.

"Fundus Oculi Findings in Diabetes Mellitus" by Dr. J. M. Molsberry, Milwaukee.

MILWAUKEE ROENTGEN RAY

A meeting of the Milwaukee Roentgen Ray Society was held on Saturday, February 15th, at which Dr. Walter Wasson of Denver, Colorado, spoke on the subject of "Non-tuberculous Disease of the Lungs." S. A. M.

MILWAUKEE SOCIETY OF CLINICAL SURGERY

At the annual meeting of the Milwaukee Society of Clinical Surgery on January 28th, the following were elected officers: President, Dr. Louis Fuerstenau; President-elect, Dr. Carl S. Williamson, Green Bay; Secretary, Dr. W. J. Carson; Treasurer, Dr. William MacKedon; Executive Committee, Drs. J. J. Adamkiewicz and R. W. Roethke.

The scientific program was composed of the following papers:

"Vaginal Hysterectomies" by Dr. Louis Fuerstenau, Milwaukee.

"Technique of Caesarean Section"—motion pictures—by Dr. R. W. Roethke, Milwaukee.

"Subphrenic Abscess as a Complication of Biliary Tract Infection and Surgical Intervention" by Dr. Carl S. Williamson, Green Bay.

"The Rationale of the Injection Treatment of Hernia" by Dr. M. A. McGarty, La Crosse.

UNIVERSITY OF WISCONSIN

Dr. F. A. Hellebrandt of the Department of Physiology spoke on "Science and the Soviet Union" before a meeting of the Wisconsin General Hospital Staff meeting on Tuesday, February 18th. This was followed by discussion and questions by Dr. H. P. Rusch, cancer research fellow.

Dr. Fred G. Johnson of Iron River, Councilor of the eleventh district of the State Medical Society of Wisconsin, addressed the Medical School Convocation at four-thirty, Thursday afternoon, February 20th, on the subject of "The Practice of Medicine in a Rural Community."

GOITER PROGRAMS

Due to unprecedented inclement weather, some county societies may find it impossible to hold meetings in March to appoint their committees on goiter. In event that committees are not appointed in March, every effort should be made to have the appointments made in April or May and advise the Secretary of the appointments as soon as they are made.

LIBRARY OF THE
COLLEGE OF PHYSICIANS

The Woman's Auxiliary

President—
Mrs. F. Gregory Connell, 420 Washington Blvd., Oshkosh
President-Elect—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
Secretary—
Mrs. Theodore J. Gunther, 2117 N. 8th St., Sheboygan
Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine
Public Relations Chairman—
Mrs. Arthur J. Wiesender, Berlin
Program Chairman—
Mrs. Ralph M. Carter, 622 S. Webster Ave., Green Bay
Hygeia Chairman—
Mrs. Harold M. Coon, River Pines Sanatorium, Stevens Point
Organization Chairman—
Mrs. Arthur Sullivan, 930 E. Gorham St., Madison
Archives and Historian—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
Press and Publicity Chairman—
Mrs. Earle F. McGrath, 429 W. 6th St., Appleton
Parliamentarian—
Mrs. Robert E. Fitzgerald, 1739 69th St., Wauwatosa
Chairman of Nominating Committee—
Mrs. Arthur J. McCarey, 902 S. Madison St., Green Bay

Health Exhibits

By THOMAS G. HULL, Ph. D.
Director, Bureau of Exhibits, American Medical Association

HEALTH is an abstract subject that cannot be demonstrated in visual form. The numerous factors which contribute to health, however, can often be presented in one way or another — in fact, the very ingenuity which is required to make a good health exhibit is the underlying factor in attracting people.

A successful exhibit requires hard work. Sometimes it is possible to borrow ready-made exhibits that can be installed with a minimum of labor. The American Medical Association has material in the form of exhibits suitable for fairs and expositions, schools and parent-teacher associations, and the like. The supply is insufficient for the demand, however, and each community must solve most of its own problems.

The technique of preparing exhibits is becoming more and more developed. Among other factors, the appearance of simplicity is important. The first glance must give the visitor the main idea, although details may keep him occupied for an hour. There must be no confusion of ideas, of materials, or colors. The exhibitor must not attempt to tell everything he knows about his subject—that is, crowd too much material into a small space. The proper emphasis is obtained by arranging the material in such a symmetry that the center of balance is the center of interest.

"Rhythm" is the proper spacing and lining up of the exhibit. The eye travels most easily along horizontal and vertical lines—charts therefore should be arranged in that manner rather than in "stair case" style. The spacing should be even, suggesting periodicity, and where charts are of several sizes or kinds, the alternation of the groupings should be uniform.

Methods of presentation are limited only by the ingenuity of the exhibitor. Personal demonstration is the most successful, and a good demonstrator requires but the simplest kind of a "set-up" to attract an audience. Charts may be made on paper or cloth, and used as transparencies to add to their effectiveness. The transparency case needs to be nothing more elaborate than a box in which is set an electric lamp. A flash button installed in the circuit sometimes is advisable to attract attention. Such a transparency, or certain portions of it, may be covered by cloth or paper, and the visitor required to push a button to turn on the light. Sometimes a guessing contest is instituted, with the correct answer shown in the above manner. There are numerous variations of this method of presentation.

A few pathological specimens are often useful and usually can be obtained at the laboratory of a local hospital. A map can be attractive, for everybody lives somewhere. Scales draw a crowd and can be the occasion for the attendant to say a few words to the individual as he pauses to get weighed. Literature is successful if presented in the right manner; a question and answer file, where the headings are easily seen can be

one of the popular parts of the exhibit. Motion pictures are very useful, and can be accompanied by a brief talk by the attendant to clinch the message.

The American Medical Association has gathered considerable material on health and this has been made available in the form of exhibits suitable for use at expositions, fairs, schools and other places where the public may gather. The exhibits include such subjects as: Information about Health; Health Posters; a Hygeia Display; Dangers of Self Diagnosis; Food and Drug Legislation; Objectionable Cosmetics; Patent Medicines and Quackery and many others. Auxiliary groups may secure any of these exhibits for use in their communities.

Reservations for any material desired should be made as far in advance as possible. The only expenses involved are transportation charges one way.

Responsibility for installation and demonstration of the exhibit material ordinarily must be borne locally for the American Medical Association does not have the personnel for such duties.

Executive Board Holds Midwinter Meeting at Milwaukee

THE midwinter meeting of the Executive Board of the Woman's Auxiliary to the State Medical Society of Wisconsin was held on January thirtieth at the University Club, Milwaukee.

The fact that twenty-nine members were present, in spite of the sub-zero temperature, is an indication of the significance of the midyear meetings.

Mrs. F. W. Pope, Racine, the Treasurer, read the report of the Auditing Committee and also announced that the Auxiliary now has 841 members.

Reports were read by the State Chairmen which were interesting both from the standpoint of what had been accomplished and the suggestions contained in them.

Mrs. Eben J. Carey, Milwaukee, National Treasurer, discussed the new forms to be used by County Treasurers.

County Auxiliary Presidents, nine of whom were in attendance at the meeting, presented their reports. Promoting Hygeia seems to be the main objective in all counties, — everyone desiring that Wisconsin again lead in the national contest for the year 1936.

Mrs. Reginald Jackson, Madison, Chairman of the Auxiliary for the state convention to be held in Madison in September, announced that plans were being formulated and that suggestions for the entertainment of the visitors would be welcomed.

Mrs. Arthur G. Sullivan, Madison, Organization Chairman, stated that two counties seemed to be rather interested in organizing, one very definitely and the other seriously considering it.

Altogether, the meeting was a most enjoyable one and each member who attended went back to her own organization with new inspiration and enthusiasm.

MINNIE GUNTHER,
(Mrs. T. J. Gunther),
Secretary.

COUNTY NEWS ITEMS

Milwaukee County

The Woman's Auxiliary to the Medical Society of Milwaukee County held its regular meeting at the Y. W. C. A. on Friday, February 14th. In spite of the inclement weather, one hundred women attended.

Mrs. Otto Foerster, accompanied by Mrs. Helen Tolan, sang several delightful songs.

Mr. Harry Meissner, President of the Milwaukee School Board, spoke on "Legislative Interference with the Administration of Public Schools."

Mrs. John McCabe, Chairman of the Hygeia Committee, announced a benefit card party and bake sale to be given by the Hygeia Committee and the Flower and Courtesy Committee at the Astor Hotel on March 24th. The proceeds will be used by the Flower and Courtesy Committee to extend cheer and consolation to members in illness or sorrow and by the Hygeia Committee to place Hygeia in schools, social centers, and public institutions.

Mrs. G. H. Friedman, Chairman of the Educational Committee, told of the work this committee is doing for the Medical Society. By keeping a record of radio broadcasts featuring patent medicines and cures and of advertisements of patent medicines in

local newspapers, the committee is furnishing the Medical Society of Milwaukee County with material that will help to eliminate such advertising. The Committee is also filing newspaper articles on socialized medicine and all medical stories released by the Associated and the United Press.

The Woman's Auxiliary has been asked by the Medical Society to assist in a tuberculosis detection program to be conducted in the Rufus King High School in cooperation with the Milwaukee Health Department.

New members introduced to the Auxiliary included: Mrs. D. J. Ansfield, Mrs. Max Bornstein, Mrs. James G. Curtin, Mrs. John R. Dundon, Mrs. C. G. Dunst, Mrs. Gilbert Fitzgerald, Mrs. Paul Albert Lee, Mrs. Gilbert J. Rich, Mrs. Bernard Schlossman, Mrs. Frank J. Schubert, Mrs. C. M. Steiner, Mrs. Raymond C. Warner and Mrs. Herbert F. Wolters.

At the March meeting, Dr. William S. Middleton, Dean of the Medical School, University of Wisconsin, will give an illustrated lecture on "Changing Weapons Against Tuberculosis."

Rock County

Members of the Auxiliary to the Rock County Medical Society met at the home of Mrs. Vincent Koch of Janesville. It was purely a social meeting and a buffet supper was served to eighteen members and five guests.

A very short business session was presided over by the new President, Mrs. F. M. Frechette, Janesville.

The minutes of the December meeting were read and approved.

The resignation of Mrs. J. T. Lemmel, Beloit, was read and accepted with regret.

Mrs. F. E. Sutherland, Janesville, presented the subject of Hygeia magazine and a motion was made and carried that each member subscribe for the magazine at $1.00 each rather than attempt to raise the money some other way.

The President requested that any early histories of medical work in Wisconsin that can be collected be given to the Historical Committee.

Cards followed and a most enjoyable evening was spent despite the extremely cold weather.

Sheboygan County

The February meeting of the Auxiliary to the Sheboygan County Medical Society was held on the fifth at the Candle Glow at Plymouth. The speaker of the evening was Mr. Walter B. Senty, Superintendent of the Plymouth Public Schools, who gave an address on "The Human Mind."

Winnebago County

Mrs. T. D. Smith of Neenah was elected President of the Auxiliary to the Winnebago County Medical Society at a luncheon meeting held on Monday afternoon, January 27th, at Stein's Tea Room in Oshkosh. Mrs. I. E. Ozanne and Mrs. H. L. Baxter, both of Neenah, were chosen Secretary and Treasurer, respectively, of the organization. Mrs. E. B. Pfefferkorn of Oshkosh was chosen President-elect.

The main feature of the meeting was an address by Miss Katherine Weinmann, county nurse. She told of the great value that Hygeia magazine is proving to be in the rural schools, the children not only profiting by reading it themselves, but frequently taking the magazine home so that their parents may read it also. The magazine is placed in all the Winnebago County rural schools by the Auxiliary to the Winnebago County Medical Society.

News Items and Personals

Dr. Arthur G. Sullivan, Madison, gave a lecture on "Medicolegal Problems in Medical Practice" before a meeting of the staff of The Mayo Clinic, Rochester, on Monday evening, February 10th.

—△—

Dr. E. B. Pfefferkorn of Oshkosh has been named as assistant state health officer and began his new duties on March second. Dr. Pfefferkorn was formerly attending physician at Sunny View Sanatorium at Winnebago as well as an instructor in health at Oshkosh State Teachers College.

—△—

Dr. J. A. Riegel, St. Croix Falls, returned on March first from a vacation trip to Mexico.

—△—

An address on "Socialized Medicine" was presented before the Neenah Club of Neenah at its luncheon meeting on February 10th by Dr. Ralph M. Carter, Green Bay, President of the State Society.

This subject was also discussed by Dr. Gilbert E. Seaman of Winnebago before the Oshkosh Rotary Club in January.

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The following changes in locations have been made recently by physicians:

Dr. H. K. Guth, formerly of Brandon, has opened an office in Waupun. He will occupy the offices formerly used by Dr. E. F. Weir, who is now in Ripon where he is in partnership with Dr. D. F. Cole of that city.

Dr. R. J. Gray, formerly of Brooklyn, has moved to Evansville where he has an office in the Hotel Central.

Dr. M. J. Hermes has opened an office at 616 Sixth St., Racine. He received his hospital training at

Misericordia Hospital, Milwaukee, and at the Hollywood Hospital and Children's Hospital at Los Angeles and was in active practice in Los Angeles for two years.

—△—

Announcement has been made by G. D. Searle & Company, Chicago, of the appointment of Dr. Albert L. Raymond as director of their research laboratories. Dr. Raymond had been connected with the Rockefeller Institute of Medical Research for the past nine years.

—△—

A special program of lectures and demonstrations in medicine will be held under the direction of The Mayo Foundation from April 6 to 10, inclusive. Mornings will be devoted to surgical and medical clinics. In the afternoons and evenings, in addition to clinico-pathologic conferences, symposiums will be conducted on various phases of gastroenterology, urology, acute and chronic empyema, vascular diseases of the extremities, hypertension, orthopedics, and oral and plastic surgery.

—△—

Dr. Earl V. McComb, Menominee, Mich., son of Dr. Isaac N. McComb of Brillion, is the author of a book entitled "Doctor of the North Country," and has just been released by the publishers.

—△—

Dr. and Mrs. A. J. McCarey of Green Bay spent the month of February in Florida and Havana, Cuba.

DEATHS

Dr. Gustaf R. Egeland, Sturgeon Bay, died on January 30th at San Marino, California, of heart disease. Dr. and Mrs. Egeland left Sturgeon Bay on January 15th to spend the winter on the west coast.

Dr. Egeland was born in Sturgeon Bay on February 29, 1876. His father was one of the early day captains on boats plying Green and Sturgeon Bays. As a boy, he attended the Sturgeon Bay public schools and spent two years in high school and at the age of sixteen was taken to Europe as the protege of Mr. Charles Ruggles of Michigan. After his return from abroad, Dr. Egeland enlisted in the coast guards at the Canal station. He was later transferred to Baileys Harbor and then to the Chicago River station.

Dr. Egeland first studied dentistry but changed to medicine and surgery, graduating from Northwestern University Medical School in 1903. After practicing at Sturgeon Bay, Virginia, Minn., and Ephraim, Wis., he returned to Sturgeon Bay where in 1915 he established the Egeland Hospital. During the World War, Dr. Egeland served as Captain in the Medical Corps.

Since 1931, his nephew, Dr. D. E. Dorchester has been associated with him.

He was a member of the Brown–Kewaunee–Door County Medical Society, the State Medical Society, and the American Medical Association. He was also a member of the American College of Surgeons.

Surviving are his widow and one son, Charles, sophomore at Ripon College; two brothers, Aleck of Oak Park, Ill., and Olaf, who commands the Coast Guard cutter Crawford, located at Two Harbors, Minn.

Dr. John W. Hess, Adell, died on January 25th of heart disease.

He was born in Caledonia, March 9, 1881. He was a graduate of Wisconsin College of Physicians and Surgeons, Milwaukee, in the year 1910. Following

STATE RADIO PROGRAM

Radio health messages are presented by the State Medical Society each Tuesday, Wednesday and Thursday morning at 9:00 A.M. These talks are broadcast over the state-owned radio stations,—WHA (940), Madison, and WLBL (900), Stevens Point.

The schedule for this month follows:

March 10	Pneumonia
March 11	Rheumatism and Arthritis
March 12	Health and The Glaciers
March 17	The Durand Baby—First Heir
March 18	The Durand Baby—His Certificate
March 19	The Durand Baby—A System is a System
March 24	The Durand Baby—Sterilized Bottles and Original Containers
March 25	The Durand Baby—All In Knowing How
March 26	The Durand Baby—Where Father Comes In
March 31	The Durand Baby—Sauce for the Goose
April 1	The Durand Baby—His First Birthday
April 2	Anemia
April 7	Let's Cooperate
April 8	Little But Dangerous
April 9	A Wisconsin Problem

LADIES AND GENTLEMEN YOUR HEALTH!

DRAMATIZED RADIO HEALTH PROGRAMS

of the

American Medical Association
Each Tuesday at 4:00 P.M. over the N.B.C. Network

March 17	Eyesight Saving
March 24	Hay Fever and Asthma
March 31	Let Your Doctor Decide

"AN ENJOYABLE HALF-HOUR"

internship he came to Adell to establish his practice where he remained until his death.

Survivors are his widow and two daughters, Eunice and Margaret.

Dr. William A. Hall, Prairie du Chien, died at his home on January 27th after a long illness.

He was born in the year 1851 and was a graduate of Louisville Medical College, Louisville, in 1877.

Dr. E. S. Hayes, Eau Claire, died on February 11th at his home in Portland, Oregon.

Dr. Hayes was born on December 27, 1856, at Industry, Maine. His early years were spent in Farmington, Maine, where he attended the village schools. He attended Amherst College in 1878 and the following year entered Harvard University Medical School and graduated in the year 1881. Following internship, Dr. Hayes located in Eau Claire, where he practiced until October, 1933, when he moved to Portland, Oregon.

He is survived by his widow and one son and one daughter, all of Portland, Oregon.

Dr. Thomas C. Phillips, Milwaukee, died on January 4th at his home after an illness of several months.

Dr. Phillips was born in the year 1860 and spent the early years of his life in Michigan. After teaching school for three years in Michigan, he enrolled at the University of Michigan, where he received degrees from both the art and medical schools. In 1888, Dr. Phillips came to Milwaukee and for several years was an assistant to the late Dr. Joseph Schneider. In 1894 he went to Europe where he took postgraduate work. Upon his return to Milwaukee he was made professor of ophthalmology and otology at the old Wisconsin College of Physicians and Surgeons, later serving as dean.

Dr. Phillips is survived by his widow, Mrs. May Phillips.

Dr. C. A. S. Gundersen, Madison, died in a Madison Hospital on February 19th after a long illness.

Dr. Gundersen was born in Oslo, Norway, in 1881. He was educated in private schools in Oslo and in 1901 came to this country. He was a graduate of Bennett College of Eclectic Medicine and Surgery, Chicago, in the year 1912. He came to Madison about fifteen years ago after having resided in Chicago and Deerfield, Wisconsin. He had served overseas in the medical corps, 107th Engineers, Thirty-second Division.

Dr. Gundersen was a member of the Dane County Medical Society, the State Medical Society, and the American Medical Association.

Surviving are his widow, two sons, Clyde, Madison and Carl, New Orleans; one sister, Miss Marie Gundersen of Norway.

Dr. M. J. Gallogly, Milwaukee, died on February 13th at his home.

He was born in Traer, Iowa, in the year 1881 and graduated from Wisconsin College of Physicians and Surgeons, Milwaukee, in 1908. Following graduation, he practiced for a short time in Waterloo, Iowa, and then came to Milwaukee. He was an assistant professor of obstetrics, Marquette University School of Medicine.

Dr. Gallogly was a member of the Medical Society of Milwaukee County, the State Medical Society, and the American Medical Association.

Surviving are his widow, two daughters, Margaret and Miriam and three sons, John, Lawrence and Eugene.

SOCIETY RECORDS

New Members

H. A. Barnes, 5920 W. North Ave., Milwaukee.
A. C. Schmidt, 425 E. Wisconsin Ave., Milwaukee.
H. F. Wolters, 176 W. Wisconsin Ave., Milwaukee.
C. S. Schneider, 152 W. Wisconsin Ave., Milwaukee.
S. E. Sebastiani, 1204 W. Wisconsin Ave., Milwaukee.
John McGovern, Wisconsin Dells.
I. A. Ihrke, Oshkosh.
G. E. Owen, Oshkosh.
G. E. Meloy, 5503 W. North Ave., Milwaukee.
V. W. Koch, Janesville.
S. S. Stack, 3618 N. Murray Ave., Milwaukee.
J. C. Zuercher, 2218 N. Third St., Milwaukee.
Griffith Jones, Cottage Grove.
L. O. Mastalir, Burlington.
J. M. Usow, Winnebago.
C. H. Behnke, Oshkosh.
R. C. Halsey, Lake Geneva.
C. F. Broderick, 401 Main St., Stevens Point.
E. D. Hudson, 831 Main St., Lake Geneva.
O. J. Urheim, Park Falls.

Changes in Address

L. B. McBain, Hartford to Bolton-Mielke Clinic, Appleton.
R. L. Towne, Nekoosa to Kalispell, Mont.

HEIDNER APPOINTED

The Council of the State Medical Society of Wisconsin announces the appointment of Dr. A. H. Heidner, West Bend, to be Councilor for the fifth district succeeding Dr. C. M. Gleason, deceased. Dr. Heidner is a former Councilor of the district and will hold office only until the House of Delegates meets in September at which time Dr. Gleason's successor will be selected by the delegates.

A telephone conference of the Council was held during February for the purpose of passing upon questions of immediate importance. The spring meeting of the Council will be held during the next few weeks.

MEDICAL ECONOMICS

LIKE LIGHTNING

The service of a summons to defend a malpractice suit is like the striking of lightning, —sharp and generally unexpected. During the past month a member of the Society who had neglected his Medical Defense payments suddenly found himself confronted with such a suit. Unfortunately payment of arrears could not bring about his reinstatement so as to afford him the legal protection that he would have had, had he maintained his Medical Defense contributions.

We mention this here because all members should appreciate that dues and Medical Defense are due on March 31st. Make your payments this month so as to maintain an unbroken record in good standing.

EXPERIMENTS

Governor Harold G. Hoffman of New Jersey, in a special message to his Legislature last January, pointed out clearly that there is a wide differentiation between scientific and social experiments.

"It is one thing for an individual to experiment in a laboratory," declared Governor Hoffman. "If he makes a serious mistake and an explosion is the result he is the only one injured. For a government to experiment with millions of human lives is quite a different thing, for if it makes a serious mistake the penalty is paid, not by one, but by millions. It is our public responsibility, therefore, to be as certain as possible of the ultimate results of any experiment to which we, acting for the State of New Jersey, may become a party."

This is the statement that those proposing various forms for the socialization of medicine might well consider.

TRAVEL DIARIES

We have before us instructions regarding "Travel Diaries" for employees of the Works Progress Administration. These diaries must be maintained if employees traveling in the Government service are to be recompensed for their expense. It interests us to note that these instructions, which must be followed precisely, require two and one-half mimeographed pages to recite.

Certificates, for instance, are necessary in order to explain "why it is necessary to travel before eight a. m. and after six p. m. Statement is also necessary explaining why official business cannot be transacted between the hours of eight a. m. and six p. m., where per diem is claimed."

"The time of arrival and meter reading and the time of leaving and meter reading must be given at every official stop. Brief statements must be made covering each day's activities as to official business transacted, at the different stops.

"An employee, upon entering a city, gives the time and the meter reading. Unless he has official travel within the city, the meter reading should be the same when he leaves. All travel diaries should be checked in regard to meter readings, in many cases errors are being made because the payee leaves a destination with less mileage then when he arrives."

Various forms are of course necessary for the so-called travel diaries. This is interesting only because were we to have the Government in medicine, presumably physicians would be asked to make out travel diaries. We can visualize the physician with his telephone ringing trying to remember what he did with that slip that showed his meter reading when he left town for that country call.

PARTISAN POLITICS

Physicians have often made the charge that when Government enters the field of medicine that it is inevitably accompanied by the influences of politics. It is of particular interest to note that no less a person than the President of the American Public Health

Association, a professor of Hygiene of Stanford University, substantiates this contention.

"It may be useful for us to remind ourselves of some rather unpleasant facts," said Dr. Brown in his Presidential Address before the Association at Milwaukee last October. "Notwithstanding our creditable progress during the last decade, a large percentage of the population of our country remains without essential public health service. The qualifications, tenure, and salaries of our health workers are far from satisfactory. Partisan politics all too frequently dominates the appointment of the official, as well as administration and tenure of office. Our budgets for health service are small compared with other governmental agencies. Even these inadequate appropriations have been cut during the depression to the point of destruction of many essential services. Finally, and perhaps of greatest significance, no spontaneous protest has arisen from the public. You may charge me with painting a dismal picture. I am sorry, but these are facts."

SOCIAL SECURITY PROGRAM

In next month's issue of the Journal will appear an article outlining the use of federal funds in Wisconsin under the Social Security Health Program. As this Journal is sent to the printer, three committees of the Society were meeting with various state officials to work out in conference a program medically sound promising most for proper health developments with the new federal funds.

REGIONAL CONFERENCE

Officers of State Medical Societies of the northwest met in Chicago during February to spend the day discussing common problems, largely in the field of the social aspects of medicine. Those participating in the conference in Wisconsin in addition to the Secretary and Assistant Secretary included Dr. A. E. Rector, Appleton, Chairman of the Committee on Medical Economics, and Dr. R. M. Carter, Green Bay, President of the Society. Legal counsel of the Society was present to interview various officials regarding legislative enactments.

CORRESPONDENCE

RURAL VS. URBAN RECORD

WISCONSIN STATE BOARD OF HEALTH

State Capitol, Madison, January 16, 1936.

Mr. J. G. Crownhart, Sec'y.,
State Medical Society,
119 E. Washington Avenue,
Madison, Wisconsin.

Dear Mr. Crownhart: I thought there might be a possibility that you would be interested in publishing an analysis of the maternal and infant deaths in the counties in Wisconsin which have cities of 10,000 or more. The 1935 figures will not be entirely completed for several months but this may be of interest since it is for the same three-year period which the other studies covered. It is quite interesting that so many of these cities of over 10,000 still show higher rates than the rural parts of the county, which is contrary to the condition which is now found throughout the United States as indicated by the Children's Bureau reports.

Very sincerely yours,
AMY LOUISE HUNTER, *M. D.*,
Supervisor, Bureau of Child Welfare.

ANALYSIS OF INFANT AND MATERNAL DEATHS IN WISCONSIN COUNTIES WITH CITIES OVER 10,000 POPULATION

For Three-Year Period, 1932–1934 Inclusive
All births and deaths corrected for residence

	Total Births For 3 Yr. Period	Total Infant Deaths (Under One Year) For 3 Yr. Period	Infant Mortality Rate For Yr. Period Per 1,000 Live Births	Total Maternal Deaths For 3 Yr. Period	Maternal Death Rate For 3 Yr. Period Per 1,000 Live Births
Ashland Co.—rural	587	32	54.5	5	8.5
Ashland—city	514	37	72.0	6	11.7
Total—county	1,101	69	62.7	11	9.9

ANALYSIS OF INFANT AND MATERNAL DEATHS IN WISCONSIN COUNTIES WITH CITIES OVER 10,000 POPULATION—Continued

	Total Births For 3 Yr. Period	Total Infant Deaths (Under One Year) For 3 Yr. Period	Infant Mortality Rate For 3 Yr. Period Per 1,000 Live Births	Total Maternal Deaths For 3 Yr. Period	Maternal Death Rate For 3 Yr. Period Per 1,000 Live Births
Brown Co.—rural	1,762	71	40.3	8	4.5
Green Bay	2,399	152	63.4	9	3.7
Total—county	4,161	223	53.6	17	4.1
Dane Co.—rural	2,856	116	40.6	13	4.5
Madison	3,056	105	34.4	9	2.9
Total—county	5,912	221	37.4	22	3.7
Dodge Co.—rural	1,766	83	46.9	7	3.9
Beaver Dam	519	19	36.6	5	9.6
Total—county	2,285	102	44.6	12	5.2
Douglas Co.—rural	593	38	64.1	4	6.7
Superior	1,602	98	61.2	13	8.1
Total—county	2,195	136	61.9	17	7.7
Eau Claire Co.—rural	893	35	39.2	3	3.3
Eau Claire—city	1,569	78	49.7	10	6.4
Total—county	2,462	113	45.9	13	3.3
Fond du Lac Co.—rural	1,842	100	54.3	4	2.2
Fond du Lac—city	1,230	42	34.1	4	3.2
Total—county	3,072	142	46.2	8	2.6
Jefferson Co.—rural	1,113	36	32.3	5	4.5
Watertown	523	40	76.5	2	3.8
Total—county	1,636	76	46.4	7	4.3
Kenosha Co.—rural	558	21	37.6	3	5.4
Kenosha—city	2,253	107	47.5	11	4.9
Total—county	2,811	128	45.5	14	4.98
La Crosse Co.—rural	825	44	53.3	3	3.6
La Crosse—city	2,211	137	62.0	13	5.9
Total—county	3,036	181	59.6	16	5.3
Manitowoc Co.—rural	1,311	83	63.3	2	1.5
Manitowoc—city	1,144	47	41.1	3	2.6
Two Rivers	587	21	35.8	4	6.8
Total for cities in county	1,731	68	39.3	7	4.0
Total—county	3,042	151	49.6	9	2.9
Marathon Co.—rural	3,088	149	48.3	14	4.5
Wausau	1,258	70	55.6	6	4.8
Total—county	4,346	219	50.4	20	4.6
Marinette Co.—rural	1,205	54	44.8	2	1.6
Marinette—city	659	39	59.2	1	1.5
Total—county	1,864	93	49.9	3	1.6
Milwaukee Co.—rural	3,769	207	54.9	23	6.1
Cudahy	602	19	31.6	2	3.3
Milwaukee—city	26,519	1,266	47.7	117	4.4
Shorewood	610	22	36.1	1	1.6
South Milwaukee	587	23	39.2	1	1.7
Wauwatosa	968	47	48.6	6	6.2
West Allis	1,940	89	45.9	9	4.6
Total for cities in Milwaukee Co.	31,226	1,466	46.9	136	4.3
Total—county	34,995	1,673	47.8	159	4.5
Outagamie Co.—rural	2,501	135	54.0	12	4.8
Appleton	1,352	81	59.9	6	4.4
Total—county	3,853	216	56.1	18	4.7
Portage Co.—rural	1,252	70	55.9	1	0.79
Stevens Point	916	69	75.3	8	8.7
Total—county	2,168	139	64.1	9	4.1

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ANALYSIS OF INFANT AND MATERNAL DEATHS IN WISCONSIN COUNTIES WITH CITIES OVER 10,000 POPULATION—Continued

	Total Births For 3 Yr. Period	Total Infant Deaths (Under One Year For 3 Yr. Period	Infant Mortality Rate for 3 Yr. Period Per 1,000 Live Births	Total Maternal Deaths For 3 Yr. Period	Maternal Death Rate For 3 Yr. Period Per 1,000 Live Births
Racine Co.—rural	909	54	59.4	7	7.7
Racine—city	3,102	124	40.0	13	4.2
Total—county	4,011	178	44.4	20	4.9
Rock Co.—rural	1,458	57	39.1	5	3.4
Beloit	1,221	58	47.5	9	7.4
Janesville	1,147	48	41.8	8	7.0
Total for cities in Rock County	2,368	106	44.8	17	7.2
Total—county	3,826	163	42.6	22	5.7
Sheboygan Co.—rural	1,511	60	39.7	6	4.0
Sheboygan—city	1,918	86	44.8	12	6.2
Total—county	3,429	146	42.6	18	5.2
Waukesha Co.—rural	1,690	74	43.8	4	2.4
Waukesha—city	893	47	52.6	0	0.0
Total—county	2,583	121	46.8	4	1.5
Winnebago Co.—rural	1,790	95	53.1	12	6.7
Oshkosh	1,811	98	54.1	9	4.9
Total—county	3,601	193	53.6	21	5.8

Bureau of Child Welfare, State Board of Health, Madison, Wisconsin

The Beginnings of the Pre-Medical Course*

By E. A. BIRGE,

President Emeritus, University of Wisconsin, Madison

I AM glad to comply with the request of Dean Middleton that I tell you the story of the early days of the pre-medical course; but I am sure that the tale will disappoint you, for you will find that I am like Canning's Needy Knife Grinder: "Story, God bless you, I have none to tell, sir." However, story or none, it will do you young people no harm to hear a little about the earlier days of the University. I shall talk in a frankly personal way, for I was the whole faculty of the Course during most of the period of which I speak. At its beginning I constituted the whole faculty of the natural history departments of the University.

I came to my teaching here in 1875, just "sixty years since", as one of a "Hill" faculty of 20, equally divided between professors and instructors; I constituted 10 per cent of the latter group. There were 239 "students in college studies" and 71 sub-freshmen or "prep" students; the senior class numbered 42. All teaching was done in the central part of what is now Bascom Hall; North and South Halls were then dormitories for men; the legislature of 1875 had appropriated money to build Science Hall, the first educational building from state funds. The foundation and basement walls were in place when I came to the campus in late December, 1875. The building was completed and occupied in 1877-78, and my active laboratory teaching began at the same time.

I was instructor in natural history and taught botany, zoology, and physiology to both college and sub-freshmen students. In 1877 there was introduced the system of admission to the University from accredited high schools, with the intention of abolishing the sub-freshman classes. This was done in 1879-80, and this change was of vital significance to the pre-medical course, for it re-

* Presented before University of Wisconsin Medical School Convocation, Nov. 7, 1935.

THE AUTHOR

Last September, The State Medical Society of Wisconsin conferred upon the author of this article the Council Award. The citation is repeated as being of particular interest in connection with this presentation.

EDWARD ASAHEL BIRGE

"A son of New York, ever a scholar, during fifty years of service at the University of Wisconsin an instructor in natural history, its professor of zoology, Dean of its College of Letters and Science, Acting President, then President, and now President Emeritus,—for your early scientific approach to the basic training of students for professional careers of service; for your vision and perseverance over a forty-year period that led to the establishment and development of the pre-medical course at the University of Wisconsin, and for your depth of perception of the problems of medical service, we, your associates, give you this seal of our Society as a token of your achievement and our esteem and affection.

lieved me of teaching botany and physiology to preparatory students, and placed on me the duty of deciding what work I should undertake in order to replace these classes.

I decided that the best plan, both in the interests of science in the University and of progress in the state, would be to introduce biological courses which should serve as a scientific introduction to the study of medicine and also as advanced laboratory courses for undergraduates. This was the beginning of the pre-medical course and this origination of it was my first great service to it.

I was prepared by my study at Harvard to give courses in both vertebrate and invertebrate anatomy, but I had had no instruction in histology, embryology, or physiology. So I planned a year's study in Europe and spent the year 1880-81 at the University of Leipzig, studying histology under Dr. Gaule, then at Privat-docent, later professor at Zurich; and physiology under Professor Ludwig. In 1881 I returned to the University and introduced, not a course, but advanced elective studies. In 1880 Professor Henry had been called here as professor of botany and agriculture, so that I was relieved of teaching botany as well as of the preparatory classes, and I had ample time for the new studies. Work in them began in 1881-82, but they were not formally announced until the next year, but pre-medical work dates from 1881. Laboratory courses were given in vertebrate anatomy, histology, and embryology. There was no thought of a course, officially they were ordinary "advanced electives"; but they were planned and taught with definite reference to future students of medicine. There was also a recitation course in physiology, which was a general elective.

In the course for vertebrate anatomy there was little that calls for remark, unless, perhaps, that it was not a "cat course". It was intended to give the student a general idea of the construction and evolution of the vertebrate type. In histology and embryology the student was expected to prepare most of his own specimens and so to secure as thorough a grounding in the technique of the subject as time would permit. In order to secure time, no one was admitted to the course who did not agree to devote most or all of his leisure to the work. In brief, these pre-medical studies for undergraduates were handled on essentially the same lines as the graduate studies of later years.

The two things of significance in these courses were; first, the early initiation of the student into the ideas and methods of independent scientific study; and, second, the holding of the student to the point of view of general biology. To secure the first aim, I spent the day in the laboratory. It made no difference to the teacher how many subjects were being studied at the same time; students were not numerous and each could get the hint that he needed to help him over some special difficulty. The second point was the more important; nothing was taught from the viewpoint of medicine. I wanted to send out students who, when they took up work in medical school, would see that human anatomy is a special case of vertebrate anatomy; that a pathological tissue offers a special aspect of normal histology. In a word I tried to provide the future medical student with a background of biological science, against which he could see his professional knowledge in its right proportions and in its larger relations.

The times were propitious for such an attempt; in 1880 the technique of biological investigation had just started its rapid de-

velopment, and few people in this country knew anything about it. I brought with me from Leipsic one of the first Schanze microtomes that was made for sale. The University also had a Cambridge rocking microtome, an earlier pattern than that of Schanze. One of the first students to use these instruments was Albert J. Ochsner, of the class of 1884, later the distinguished surgeon of Chicago. When he went to Rush Medical College after graduation here, the faculty found that he was already well trained in the most recent technique of histology and embryology; so they wisely set the first year medical student to work at once, teaching his fellow students what he had learned. I may add that microtomes of these patterns are now exhibited in the lobby of the Biology Building; the original instruments were destroyed in the Science Hall fire of 1884.

Another important course of study was opened to future medics in 1885. Dr. William Trelease had come to the University as botanist in 1881. He was interested in bacteria, or rather in micro-organisms, and while here studied them with the primitive methods of the day,—potato smears and substrata. His thesis for the degree of Sc. D. at Harvard was prepared on this subject and was later published in the Biological Studies of Johns Hopkins University under the title: Zoogloeae and Related Forms. In 1885 the regents granted to him an appropriation, I think some $400, to purchase apparatus so that he might begin regular instruction in bacteriology, using the new methods of gelatine cultures, etc. Before the new apparatus arrived Trelease was called to the Shaw Botanical Gardens of St. Louis, and it fell to me to unpack his apparatus. It was quite unthinkable that an equipment so large and valuable should stand idle and so I was told to get busy and teach bacteriology, which accordingly I proceeded to do. Here again, thanks to Trelease, the University was early in the field. My course was regularly given but it was not announced in the catalogue for the first two years, for I regarded my part in it as a temporary affair, and expected to turn it over to the botanist who should succeed Trelease. But the first appointments were temporary matters and in 1887, when Professor Barnes came as botanist, it turned out that he knew little and cared less about bacteria; so I, who meanwhile had learned a little about them, was obliged to continue the course.

"SPECIAL SCIENCE COURSE"

The year 1887 was also fateful in other ways both for the University and for the pre-medical course; for in that year Dr. T. C. Chamberlin became our president, and he began at once to transfer the institution from the college to the university basis. As part of that reorganization there was established the "special science course antecedent to medicine", which title in 1892 was abbreviated to pre-medical course. This was the official birth of the course, but the work had already been going on for four or five years in just the same way as it did after the course was christened. The biological studies naturally formed only a small part of the organized course, but they continued to be its central work and that which made it distinctively pre-medical.

There were two students who received their degrees of B. S. in 1888, the first year of the official course, who had taken all they could of its biological studies. One of them looked at the work from the viewpoint of the future student of medicine, Dr. Joseph Colt Bloodgood, then of Milwaukee, later of Baltimore, a distinguished surgeon and cancer specialist and a member of the medical faculty of Johns Hopkins University. We are now mourning his death, which occurred but a few days ago. On a recent visit to Madison, he told me that he "put himself through medical school" at Philadelphia by the bacteriology that he learned here; certain "Dakota lands" on which he had reckoned, having "gone sour on him". Like Ochsner in histology four years earlier, he was ahead of his medical teachers in the then new science of bacteriology.

The other student of the class of 1888 looked at bacteriology as a science for itself, not as an adjunct to medicine. This was H. L. Russell, whose later life and record do not need to be told here, for many significant signs of its results are visible on our campus

and vital in our University. In 1888 he was appointed one of the first group of our graduate fellows; took his master's degree in 1890 with a thesis on these micro-organisms; he then studied in Berlin, Paris, Naples, and Baltimore, and returned to us in 1893 as assistant professor of bacteriology.

This brings me to my second great service to the pre-medical course—I got out of it. In 1891 President Chamberlin completed his reorganization of the University by giving Professor Henry the new position of Dean of the College of Agriculture and by appointing me to the same position in the College of Letters and Science. By that time pre-medical teaching had been carried on for a decade and it had become very plain that the sciences included in the course had so advanced that they needed teachers with far more technical knowledge than I possessed. The same conclusion was equally indicated by the development of advanced studies and research under President Chamberlin's administration of the University, and by the certainty of their further rapid advance in the years immediately before us. So in adjusting my work to the new appointment, I proposed the conditions—to which the President was more than ready to assent—that I would return to my study of lakes for my research, and that new men should be brought in as soon as possible to take over the teaching of the pre-medical course.

In 1892 Dr. William S. Miller came to us and took over the courses on vertebrates; in 1893 Professor Russell came as bacteriologist, to be joined by Professor Frost two years later. My own work in the Course was thus reduced to the general recitation course in physiology. This I retained until 1904-05 and in the following year Professor Erlanger came to develop that subject on the larger university basis.

With the new appointments of the early 90's there began the great period of the pre-medical course, when its graduates were making notable records in the medical schools of the country. In particular, Johns Hopkins University founded its medical school in 1893 on a basis far more scientific than any of its predecessors. The type of work done at Wisconsin was precisely that which fitted men for that type of school; and a large number of our graduates always went there until our own medical school was founded. Wisconsin graduates formed a distinct and noted group at Johns Hopkins.

But the story of the course in these years belongs, not to me, but, to those who developed and maintained it; to those who not only taught but also inspired their students. I have told you enough of the short and simple annals of its beginnings and of the first decade of special teaching at Wisconsin for future students of medicine. I have given you the poor remains of the patterns of memory that are least indistinct after they have faded for one or two generations. I regret especially that I can not give you more personal memories of those numerous members of earlier classes who went into medicine after study in our laboratories.

Dr. Simon Miller, 1848–1935

By WILLIAM SNOW MILLER, M. D.

Madison

THE typical country physician, beloved by all of his patients, has been described by Ian Maclaren, in *Beside the Bonnie Brier Bush;* by Sarah Orne Jewett, in *A Country Doctor;* and by David Grayson in *Adventures in Contentment.*

It occasionally happens that a sketch of a pioneer Doctor who grew up with the country, and was known and loved by all, is published in a local paper and so escapes general notice. Such a sketch written by Mrs. E. G. (Miller) Senty, daughter of the old pioneer Doctor, was sent me by a friend who found it in the Mondovi, Wisconsin, Herald-News of May 3, 1935.

Correspondence led to permission to reproduce such portions of the sketch as I desired, and these, together with additional

Dr. Simon Miller
1848–1935

facts, are incorporated in the following story of the life of Doctor Simon Miller of Mondovi, Wisconsin.

Simon Miller was born at Stroudsburg, Pennsylvania, September 28, 1848. His father, Samuel R. Miller, was a millwright by occupation. He was born in 1803, and died in 1855 of cholera. His mother, Hannah (Butz) Miller, was born in 1808, and died in 1863. His grandfather, Sebastian Miller, was born in 1757; he is said to have been an officer under Washington in the Revolutionary War. He died in 1842. So Simon Miller had for the background of his life a sturdy, industrious ancestry.

From early boyhood Simon Miller looked forward to the time when he could become a physician. After attending the Stroudsburg Academy, he began the study of medicine with Dr. Abraham Reeves Jackson who, at that time, was living at Stroudsburg. No doubt his association with Dr. Jackson, whose specialty was gynecology, influenced his own practice when he finally settled in Mondovi. In 1870, Dr. Jackson moved to Chicago and immediately acquired a prominent position in medical circles.

After four years of study with Dr. Jackson, he entered the University of Pennsylvania Medical School from which he was graduated in March, 1870. At the time of his death he was one of the oldest graduates of the Medical School.

After graduation, Dr. Miller practiced for five years in Gouldsborough, Pennsylvania; then for nearly five years in Stroudsburg, Pennsylvania. In 1880, he left Stroudsburg and settled in Mondovi, where he practiced for over fifty years.

On May 14, 1884, he married Ada Elizabeth Adams of Mondovi. On Sunday, Mother's Day, May 13, 1934, Dr. and Mrs. Miller celebrated their golden wedding, and kept open house for their friends. Dr. Miller died April 23, 1935. A daughter, Mrs. E. G. Senty of Davenport, Iowa, and a grandson Richard Dean Senty are still living.

A short time before Christmas, 1934, Mrs. Senty wrote the sketch of her father's life to which I have already referred. In this she has described, in so pleasing a manner, some of the difficulties with which the country Doctor had to contend at Mondovi, that I shall quote it freely:

> There was a stage to Eau Claire but no railroad, no connection to the surrounding towns of Strum, Eleva or Gilmanton. There were no doctors at any of these smaller towns. It was necessary to be up before daylight to drive the six miles to Naples, a rural community to the east, back at mid-morning to change horses and drive to Gilmanton, ten miles to the south. There were no paved roads, no gravel, only deep sand in some directions, and clay, treacherous in wet weather, in others, and in spring when the roads "broke up" and the frost came out of the ground, it was frequently impossible to drive a team of horses and buggy, so he drove a single horse and light cart himself. There were usually five horses in his barn, taken care of by a faithful driver. One of my earliest memories is seeing him with a charcoal heater in one hand, heavily coated with a woolen overcoat, and a fur coat on top of that, a fur cap over his ears, wrapping the buffalo robe about him and driving off in a cutter with sleigh bells jingling to a house in the country where his coming was awaited anxiously. Those were the days of good old-fashioned winters in Wisconsin, when the snow piled several feet high and drifted, enabling one to walk over fences on the encrusted drifts. The ther-

mometer registered thirty to thirty-five, or more, below zero throughout the long winter months.

There were no electric lights, no automobiles, telephones, radios; no public libraries or aeroplanes. Furnaces and bathrooms were unheard-of luxuries. People in need of the doctor came on horseback, with a kerosene lantern in hand to knock at his door in the middle of the night, and lead him to a distant farmhouse where a lamp in the window lighted and directed the way.

In a personal communication, Mrs. Senty says: "I remember a great deal of real pioneer life—I have lived some of it myself." Such being the case, what must have been the remembrances of the old Doctor as he considered the changes, not only in the comforts of life, but also in medical and surgical practice in the fifty odd years he had been in Mondovi! Changes that amount to a revolution in medicine as a whole date back but a little over fifty years.

In 1882, Koch discovered the tubercle bacillus; in 1883, Klebs discovered the diphtheria bacillus; in 1895, Röentgen discovered the x-rays; in 1896, the Widal agglutination test for typhoid fever was introduced; in 1899, Reed demonstrated the transmission of yellow fever by mosquitoes; in 1910, Enrlich introduced salvarsan (606) in the treatment of syphilis; in 1921, Banting and Best isolated insulin; in 1925, Whipple, followed in 1926 by Minot and Murphy, introduced the liver diet in the treatment of pernicious anemia; and finally the introduction of the various vaccines and serums in the treatment of diseases, to mention a few of the important discoveries in medicine.

With the introduction of antiseptic, followed by aseptic, methods of treating wounds, surgical technique had been so improved that, assisted by the newer methods of producing insensibility to pain, the surgeon has invaded all parts of the body with impunity.

That Dr. Miller should make gynecology and obstetrics his specialty is not surprising, considering the fact that his preceptor, Dr. Jackson who specialized in gynecology, must have given him instructions in these branches of medicine. The local paper for some time carried his card which read "Diseases of Women a Specialty."

In gynecology the improvements in treatment have been no less remarkable than those in medicine and surgery. In 1868, just previous to his graduation, Lawson Tait perfected the operations for ovariotomy, and in 1883, that for tubal pregnancy. In 1872, Noeggerath described the devastating effect of the gonococcus on the female pelvis. Extending over a series of years, treatment of cancer of the cervix by means of the x-rays, and by radium, had been developed by Abbe, Wickham, Kelly, Sitz, and Wintz. In 1922, Sampson recognized and described endometriosis, and within the last two decades our knowledge of female endocrinology has been acquired.

Obstetrics also played an important part in Dr. Miller's practice:

He has ushered 2,650 babies into this world. He has delivered three generations in the same family; grandmother, mother, daughter, and he proudly states "I have never lost a mother or baby." He has treated these same families from childbirth through the diseases of infancy to the last call.

In 1930, a reception was tendered Dr. Miller in celebration of fifty years' service as a doctor in Mondovi. "Tributes were paid him by representatives of the medical profession, the church, the legal profession, the school, and the press." Dr. Christian Midelfart, of Eau Claire, who knew him intimately as a fellow practitioner, spoke for the medical profession, and paid a very graceful tribute to Dr. Miller:

We are today celebrating Mondovi's grand old man—in fact the greatest man not only in this community, but the greatest man in this territory. I think I have every right to call him so because there is undoubtedly no man who has been or could have been of greater service to the people among whom he has chosen to live than the man who has served a community as a doctor for fifty consecutive years. Of course it is not enough to be a doctor—you must be the right kind—and I do claim that Dr. Miller has been that, in an unusual degree. He is the true type of what people and the profession so often lament losing—the type that is getting scarcer every year. He is the type of the good old family doctor, who is a true friend to his clientele—gives them advice after his best judgment, regardless of any pecuniary gain or reward and regardless of anything but their true interest—a man whom you can trust. —He has been as many of you know (but I dare say not all) a great man in his profession for his time and days. He has, to a remarkable degree, kept abreast of the times and is as well informed in medi-

cal subjects as most of we younger (I call myself younger) men are. I have often marvelled over the knowledge and wisdom that he has shown; it is thirty-eight years since we first met.

Many lament the passing of the old family physician. Who is to blame? Robert J. Morris, in his *Fifty Years a Surgeon* says: "The public—the people who wanted him most were the ones who did it!" Will he ever come back? Morris says: "I believe the general practitioner—guide, counselor, and friend of the family is to return in full force." But what of the specialist; will he pass out of the picture? I do not think so. It is estimated that the well-educated general practitioner is capable of caring for from 80–90 per cent of the cases which seek medical advice. We need the specialist, who should be personally known by the attending physician, to care for the remaining 10-20 per cent. This being the case, the burden is placed squarely on the shoulders of the medical schools. It is for them, and for the State Board of Medical Examiners, to make sure that only qualified physicians are granted a license to practice.

Addendum. After the manuscript for this paper had left my hands, and while it was passing through the press, Wisconsin suffered one of the "old-fashioned winters" so aptly described by Mrs. Senty. Fifty years from now it may be that the younger members of the present generation may also describe an "old-fashioned winter" which they experienced while living in Wisconsin.

District W. P. A. Compensation Offices Listed

MEDICAL claims for adjustment for services rendered to injured W. P. A. employees under the U. S. Employees' Compensation Act can be handled through any of the ten district offices announced for Wisconsin. Mr. Harry A. Nelson is State Compensation Officer with offices at 149 E. Wilson Street, Madison. District compensation officers, their addresses and counties covered follow:

District No.	*Name of Officer*	*Address*	*Counties in District*
1.	Herbert F. Guenzl	Memorial Bldg., Rhinelander	Langlade Lincoln Marinette Oneida Forest Florence Vilas
2.	Fred C. Aebischer	420 Main St., Green Bay	Brown Calumet Door Kewaunee Manitowoc Outagamie Oconto Shawano Winnebago
3.	John W. Eber	Resthaven, Waukesha	Fond du Lac Ozaukee Kenosha Racine Sheboygan Washington Waukesha
4.	George J. Krebs	52 Veterans' Administration, Milwaukee	Milwaukee
5.	Wm. C. McGeever	210 Church St., Stevens Point	Adams Juneau Marathon Marquette Portage Waupaca Waushara Wood

District No.	Name of Officer	Address	Counties in District
6.	Erick J. Onstad	215 S. Dickenson St., Madison	Columbia Dane Dodge Green Jefferson Rock Walworth
7.	Newel A. Lamb	Court House, Ashland	Ashland Bayfield Burnett Douglas Iron Price Sawyer Washburn
8.	Wade K. Halverson	626 Broadway, Menomonie	Chippewa Barron Dunn Eau Claire Polk Rusk St. Croix Taylor
9.	Frank R. Schneider	304 Federal Bldg., La Crosse	Buffalo Clark La Crosse Monroe Jackson Pepin Pierce Trempealeau
10.	Leo P. Lownik	Schmidt Bldg., Lancaster	Crawford Grant LaFayette Iowa Richland Sauk Vernon

The Journal Book Shelf

BOOKS RECEIVED FOR REVIEW

The 1935 Year Book of General Surgery. Edited by Evarts B. Graham, A. B., M. D., professor of surgery, Washington University School of Medicine; surgeon-in-chief of the Barnes Hospital and of the Children's Hospital, St. Louis. The Year Book Publishers, 304 South Dearborn St., Chicago. Price $3.00 postpaid.

The Pharmacopoeia of the United States of America. Eleventh Decennial Revision. By Authority of the United States Pharmacopoeial Convention, held at Washington, D. C., May 13 and 14, 1930. Mack Printing Co., Easton, Pa.

Recent Advances in Medicine. By G. E. Beaumont, M. A., physician with charge of out-patients, Middlesex Hospital; physician to the hospital for consumption and diseases of the chest, Brompton, and E. C. Dodds, M. V. O., Courtauld Professor of Biochemistry in the University of London; Director of Courtauld Institute of Biochemistry, Middlesex Hospital. Eighth edition. Price $5.00 net. P. Blakiston's Son & Co. Inc., 1012 Walnut St., Philadelphia, Pa.

A Textbook of Roentgenology. By B. J. Michael Harrison, M. B., Director of Department of Roentgenology, Vancouver General Hospital; Roentgenologist to Vancouver Public Health Institute for Diseases of the Chest. Price $10.00. William Wood & Company, Baltimore, Md.

Around A World on Fire. By Karl E. Kassowitz, M. D. Gutenberg Publishing Company. Price $2.00.

Doctor of the North Country. By Earl V. McComb, M. D. Thomas Y. Crowell Co., 393 Fourth Ave., New York, N. Y. Price $2.00.

Glandular Physiology and Therapy. A symposium under the auspices of the Council on Pharmacy and Chemistry of the American Medical Association, 535 N. Dearborn St., Chicago, Ill. Price $2.50.

Fundamentals of Biochemistry in Relation to Human Physiology. By T. R. Parsons, B. Sc. (Lond.), M. A. (Cantab.). Fifth edition, revised. William Wood and Co., Baltimore, Md. Price $3.00.

For and Against Doctors. An anthology compiled by Robert Hutchison and G. M. Wauchope. William Wood and Co., Baltimore, Md. Price $2.00.

The National Formulary. Sixth edition. Prepared by the Committee on National Formulary by authority of the American Pharmaceutical Association. Published by the American Pharmaceutical Association, Washington, D. C.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

The Parathyroids in Health and in Disease. By David H. Shelling, B. Sc., M. D. The Johns Hopkins University and Hospital, Baltimore. Price $5.00. C. V. Mosby Co., St. Louis, Mo.

This volume should be carefully read by every clinician who expects to handle cases of parathyroid gland disturbances. It represents a very detailed and thorough survey of the entire field. The book will not be of interest to the clinician or the experimental endocrinologist who wants merely a rapid superficial review. It is, nevertheless, well organized.

Some of the striking features of the book include the author's theories of parathyroid physiology and the results of excessive action of the hormone. His fundamental concept is that parathyroid hormone facilitates phosphorus excretion via the kidney. With hormone deficiency, the body has to excrete more of the phosphorus via the bowel and this requires a larger supply of calcium which is thereby lost from the body depleting the blood calcium. The situation may be met in part at least by reducing the phosphorus intake. Emesis is explained as an attempt by the body to reduce the intake of the offensive phosphorus. Acute intoxication with parathyroid hormone excess is said to be due to the diuresis which is well known to occur with consequent depletion of water and electrolytes, which in turn lead to a hypercalcemia. The treatment is the use of water and saline liberally for the relief of acidosis or alkalosis which may occur following vomiting.

The author's theory of chronic hyperactivity of the parathyroid is based on Jaffe's theory. Somehow an increased solubility of calcium phosphate is brought about in the urine by means of a tendency to increased acidity, increase in magnesium concentration, increased excretion of water and electrolytes. This in turn depletes the soft tissues of water and electrolytes and finally the bones are demineralized. Next the repairing of bone is marked by some osteoclastic activity and some healing by fibrosis, also some by new bone formation. Metastatic calcification occurs in soft tissues because of the low concentration of water and sodium at the same time that calcium is increased.

The interrelations of parathyroid hormone and vitamin D are analyzed in the most interesting way. The author suggests that parathyroid function is stimulated by either a high concentration of phosphorus in serum or a low concentration of calcium. Viosterol causes high serum phosphorus and may therefore stimulate the parathyroids. In parathyroid tetany, viosterol may increase the symptoms by increasing the serum phosphorus. If, however, the parathyroids can respond to the stimulation, it may help to secure improvement eventually. On the converse the parathyroids may protect the blood against an excess of viosterol which caused high phosphorus by facilitating the excretion of the phosphorus through the kidney.

One extremely practical feature of this book is a series of special diets for clinical use in disturbances of the parathyroid. There are some low calcium diets, but what is far more important, are the seven reasonably palatable diets that are low in phosphorus, varying from 1200 to 2100 calories and designed for the treatment of chronic tetany without the use of parathyroid extract. Nowhere else has this type of detail been satisfactorily published. E. L. S.

The Medical Treatment of Gallbladder Disease. By Martin E. Rehfuss, M. D., Clinical Professor of Medicine at Jefferson Medical College, Philadelphia, and Guy M. Nelson, M. D., Instructor of Medicine at Jefferson Medical College, Philadelphia. W. B. Saunders Co.

Gallbladder disorder as a medical problem, whether surgery is indicated or not, is strongly emphasized by the authors. The importance of gallbladder pathology is considered in the light of its local and systemic effects. Except for inadequate reference to the role of the reticulo-endothelial system in bile production, the authors present a good anatomic-physiologic basis for their therapy. Biliary disorder is considered in its relation to the hepato-enteric system and to metabolic and infectious factors. The use of duodenal drainage as a diagnostic and therapeutic agent is referred to throughout the book. Medical therapy is presented in almost meticulous fashion, and reviewed from three aspects: Metabolism, infection, and stasis. Except for almost wearisome repetition as one proceeds through the volume, the reader will find the work extremely enlightening, easily readable, and fulfilling of a real need in the knowledge of treatment of gallbladder disturbance. E. M. B.

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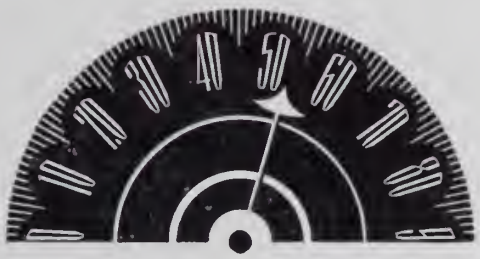

The Diabetic Over Fifty

Coronary sclerosis is prevalent among older diabetic patients and it has been suggested that all diabetics over fifty years of age be treated as potential heart cases. Since an adequate blood-sugar level may be essential to cardiac nutrition, when Insulin is given in such cases there should be ample "coverage" with carbohydrate.

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Prompt Attention Given to Professional Inquiries

PRINCIPAL OFFICES AND LABORATORIES, INDIANAPOLIS, INDIANA, U. S. A.

Infant Nutrition. By Williams McKim Marriott, B. S., M. D., professor of pediatrics, Washington University School of Medicine; Physician-in-chief, St. Louis Children's Hospital, St. Louis. Second edition. C. V. Mosby Co., St. Louis, Mo. Price $4.50.

Following the plan of his first edition the author first discusses the normal growth and development of the infant and then outlines, briefly but clearly, the metabolism of the various necessary food elements. This is followed by a description of the known factors concerned in the physiology of digestion in the gastrointestinal tract of infants. Several chapters are devoted to the subject of breast feeding, artificial feeding, and the use of proprietary milk and milk modifiers.

Although the order of discussion remains about the same there has been a complete revision of the text. The subjects of anhydremia, acidosis and alkalosis are now included in the chapter on diarrhea. The case reports in the chapter on athrepsia have been omitted and the subject has been given more general treatment. The chapter on vitamins has been revised to include the more recent knowledge of these important substances. A chapter discussing the relation of allergy to nutritional disturbances has been added.

As in his first edition the author emphasizes the need for a thorough knowledge of the normal and pathological, physiological and chemical processes before an attempt is made to treat the nutritional and deficiency disorders of infancy.

The author has drawn largely from his own long experience in the care of infants to produce a very readable book. It should be a valuable addition to the library of the general practitioner and medical student. K. B. M.

Regional Anatomy. By J. C. Hayner, B. S., M. D., associate professor of anatomy, assistant surgeon, Flower Hospital, assitant visiting surgeon, Metropolitan Hospital, New York, New York. Price $6.00. William Wood & Co., Baltimore.

The author's introduction clearly defines the purpose and content of the book. It is a compilation of purely descriptive anatomy arranged according to the regions of the body, and intended as a volume from which to review rather than to study anatomy. It stands midway between the brief compend and the standard descriptive text-book. It is not illustrated. The text is accurate enough and is fairly well written. One would perhaps question the purpose rather than the content of this volume. O. A. M.

Modern Treatment in General Practice. Volume II. Edited by Cecil P. G. Wakeley, D. Sc., Fellow of King's College, London; Editor of "The Medical Press and Circular." William Wood & Co., Baltimore.

In the words of the editor, the second volume of "Modern Treatment in General Practice" is a "book born of popular demand." The first volume was so successful that a reprint was necessary within six months of its publication. These two volumes are compilations of articles published in the Medical Press and Circular.

The second volume is a survey of therapeutic and diagnostic methods in a wide variety of medical and surgical conditions. Only a few specific points will be commented upon. In the chapter upon the treatment of asthma, the statement is made that specific desensitization has not fulfilled its purpose. In the author's opinion this is due chiefly to two reasons: 1) When once the asthma diathesis exists, a variety of stimuli will produce an attack, so that even if the patient is rendered immune to one, he is still sensitive to others; 2) Desensitization, if it does occur, is apt to be of only short duration. In a discussion of the treatment of thyrotoxicosis, sodium fluoride is mentioned and the author states he has given it a trial but finds that the benefit accruing is certainly no greater than might be expected from the use of iodine alone. As the "most reliable drugs over long periods", potassium bromide and chloral hydrate are recommended. In a discussion of radiological treatment the following statement is made, "There need be no fear that x-ray therapy will increase the difficulties met with at operation. I have been at pains during thyroidectomy to detect the adhesions to extra-thyroid tissues alleged to be produced by radiotherapy, but have failed to find them."

Especially to the busy general practitioner who may feel that he cannot spare the time for more detailed reading, the book is to be recommended. M. L. C.

Behavior Development in Infants. By Evelyn Dewey. A survey of the literature on prenatal and postnatal activity, 1920-34. Columbia University Press. New York, N. Y. Price $3.50.

The need for some method of accurately determining an infant's mental and physical development has long been felt by all those interested in child development. That the need still exists is well shown by Miss Dewey's excellent review of the literature on the subject, covering the years 1920-34. She reviews and comments upon the work dealing with fetal behavior, a field obviously extremely difficult to explore, and continues with a review of the behavior in partunates and neonates and describes the results of apptitude tests as given by many different observers. She emphasizes the need for uniformity in procedure and nomenclature in order to avoid many of the confusions which have existed heretofore. H. K. T.

Surgery: Queen of the Arts. By William D. Haggard, M. D., Nashville, Tennessee. Professor of Clinical Surgery, Vanderbilt University School of Medicine; Surgeon to Vanderbilt Hospital and St. Thomas Hospital; President, Southeastern Surgical Congress; former President of the American Medical Association. Cloth $5.50 net. W. B. Saunders Co., Philadelphia.

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SOLLMANN (A Manual of Pharmacology, 4th Ed. Saunders, p. 774), discussing the therapeutic uses of dialkyl barbiturates, says they have "a wide variety of applications: To secure sleep, to dull worry and apprehension and to calm nervousness and obtain tranquillity and rest in conditions ranging from 'overwrought nerves' through drug addictions, hyperthyroidism, mania, chorea, and epilepsy; . . . they allay the apprehension and greatly reduce the risk of operation."

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This volume contains a group of papers, addresses, and clinics, selected from over one hundred and fifty contributions by Dr. Haggard during the past few years. The addresses were for the most part given before the several national medical societies with which he is associated. As he states in the foreward "they were inspired by the occasion", and the subject matter deals with some of the most inspirational and momentous discoveries in the field of medicine.

The papers deal with common surgical problems and a large series of cases with exacting analysis are presented. In addition many clinics on various surgical subjects are presented giving an insight into the vast knowledge and keen judgment which the author has.

It is well written and is a book which is stimulating as well as educational, not only for the surgeon but for the general practitioner as well. K. L.

Tumors of the Urinary Bladder. By Edwin Beer, M. D., visiting surgeon, Mount Sinai Hospital; consulting surgeon, Bellevue Hospital, New York, N. Y. Price $3.50.

This monograph covers the entire picture of bladder tumor rather well. He has not stressed the common diagnostic errors which may occur, but all the known methods of treatment are numerated. The treatment favored by the author is the method generally accepted by the majority of genitourinary surgeons. For the benefit of the general practitioner, I think a great deal more stress might have been laid on painless hematuria and the extreme necessity for early diagnosis. J. B. W.

Immunology. By Noble Pierce Sherwood, Ph. D., M. D., professor of bacteriology, University of Kansas, and Pathologist to the Lawrence Memorial Hospital, Lawrence, Kansas. Price $6.00. C. V. Mosby Co., St. Louis, Missouri.

The book is comprehensive and up-to-date. The author gives a clear and adequate presentation of most of the major subjects for discussion, including the more recently developed knowledge of the factors influencing specificity and of the significance of the latter in all types of immunologic response. The extensive, well-selected bibliography and the explicit statement of the various immunologic techniques together with the basis for interpretation of results meet admirably the requirements of a standard reference book.

In the opinion of the reviewer, however, this book does not replace the more coherent, balanced, and mature work of Zinsser as a textbook for the student of immunology. The numerous subject heads militate against concentration and produce the impression of a lack of cohesion. The disproportionate space devoted to syphilis and to complement fixation on the one hand and the curtailed presentation of opsonins, phagocytosis and cellular elements in immunity on the other (56, 110 and 25 pages respectively in a total of 468 pages given to discussion) make for a lack of the balance to be desired in a textbook. A more concerted direction of attention to the role of antibodies in vivo and to the participation of both humoral and cellular elements in resistance to many, if not most, infections would enhance the value of the book. This text (as all others known to the reviewer) presents erroneously the inheritance of blood groups in all matings involving an AB individual (Levine, Jour. Lab. and Clin. Med., 1935, 20, 785). F. E. H.

Demonstrations of Physical Signs in Clinical Surgery. By Hamilton Bailey, F. R. C. S. (Eng.), Surgeon, Royal Northern Hospital, London. Fifth edition, revised. Price $6.50. William Wood & Co., Baltimore.

This book was written essentially as a demonstration of physical signs in surgery for students. It contains many signs not found in the usual textbooks, some of which are undoubtedly of value in the differential diagnosis of obscure conditions. The illustrations are very good and add much to the value of the book. It is my feeling that this volume should be placed on the optional list for students and practitioners. The new material which is presented is not sufficiently important to recommend its universal use. K. E. L.

Tumors of the Female Pelvic Organs. By Joe Vincent Meigs, M.D., instructor in surgery, Harvard Medical School. The Macmillan Company, New York, New York. Price $6.00.

The author has assembled the benign and malignant tumors of the female genital organs. In addition the pathology of these tumors has been correlated with clinical symptoms, diagnosis, prognosis, and treatment. The survey has been taken from large hospital experience. The illustrations are to be commended.

This book can be highly recommended as a most important contribution in the pathology of pelvic tumors in the female genital organs. R. E. C.

Annual Reprints of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1934, with the Comments That Have Appeared in The Journal. Cloth. Price $1. Pp. 135. Chicago: American Medical Association, 1934.

Each succeeding volume of reports of the Council reveals more of the long and successful fight in the interest of rational therapeutics. The Council is no longer chiefly concerned with noisome proprietaries and yet this latest volume contains reports of such articles as "Vita-Cell," a secret preparation marketed with exaggerated claims, and "Raylos," a shotgun preparation marketed in a way to promote its ill-advised use by the public. Most of the "unacceptable" reports in this volume are concerned with products that may have some merit but are not offered to the public in a way which experience has taught the Council is necessary before a thera-

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peutic agent is acceptable. Such products are Iodine Dusting Powder (Sulzberger), rejected for lack of clinical evidence of its advantage over one of its constituents; Pernoston, rejected because of lack of clinical evidence to justify routine intravenous injection of barbital compounds; Di-Hydranol, a claimed bactericidal agent proposed for use as an "intestinal antiseptic," a claim not supported by sufficient clinical evidence; and Squibb Adex Tablets, a product containing a concentrate of vitamins A and D, for which the firm could not agree to adopt a more informative name.

To those who have followed the Council's investigation of B. acidophilus therapy, the report "Acidophilus Bacillus Liquid-Mulford and Mulford Acidophilus Bacillus Block Omitted from N. N. R." will be of interest. The Council has apparently not yet reached an ultimate conclusion concerning acidophilus therapy, but it has for years held that no product could be expected to be of value unless it could show at least one hundred million viable B. acidophilus organisms at the "date of expiration." Competent bacteriologic examination showed that the two preparations here reported were inferior to this standard. Further grounds for omission were the failure of the manufacturer to comply with certain stipulations in regard to labels and advertising. Another noteworthy omission is that of Alpha-Naphco and its dosage forms, omitted because the Council on reconsideration found that it is a weak antiseptic.

The Council also issues preliminary reports, which define the status of new preparations for which the evidence is not yet sufficient to justify their presentation to the medical profession generally. Preliminary reports do not imply rejection but rather postponement of consideration until more evidence is reported by competent investigators. These reports are the outposts of therapeutic progress and as such are valuable sources of information to physicians. In this volume there are preliminary reports on Adrenal Cortex Extract, concerned mostly with scientific terminology, Cysteine Hydrochloride, Dihydroxy-Anthranol (Anthralin), Gastric Mucin, Hemoprotein (Brooks), Phenylmercuric Nitrate and Phenylmercuric Chloride.

Illustrative of the Council's efforts to keep those concerned informed of the basis for its actions are the "Recent Revisions or Elaborations of the Council's Rules of Interest to Manufacturers and the Medical Profession," which have appeared in the last two volumes. These inform the profession of the various problems which arise and the care given to their consideration. To be commended also is the "Report on Sterility of Ampule Preparations."

A Textbook of Physiology. By William D. Zoethout, Ph. D., professor of physiology in the Chicago College of Dental Surgery (Loyola University). Fifth edition. Price $4.00. C. V. Mosby Co., St. Louis.

The fact that this is the fifth edition of a book which has been in use for more than a decade, stands as a recommendation for the general adequacy of Zoethout as a Textbook of Physiology. It has been thoroughly revised and keeps abreast of the principal advancing fronts in this science. The arrangement of the material presented is logical and similar to that of the standard texts used for the more advanced study of physiology. The text is well written, in a simple, clear and direct style. It is sufficiently illustrated with a good selection of schematic sketches, photographs, and reproductions from recognized source books. Zoethout accomplishes three things with considerable success. First, he gives to the student a realization that physiology is not a finished science by consciously attempting to differentiate between facts and changing hypotheses. At the same time, recent literature is well evaluated, and the student obtains a consecutive picture of the mechanisms which explain the functional characteristics of the human body. Second, the systems studied individually are so repeatedly inter-related that a real conception is ultimately attained of the human organism as a composite man. Third, physiology is presented not as an esoteric science but as one in which the understanding of fundamental phenomena may be brought to bear in a specific way upon the intelligent solution of everyday problems in personal hygiene. Intended to bridge the gap between very simple combined texts of anatomy and physiology and those presupposing training in gross and miscroscopic anatomy and biochemistry, it fulfills it purpose admirably. F.A.H.

Pediatric Treatment. By Philip S. Potter, A. B., M. D., formerly instructor in clinical pediatrics at the Medical School of Syracuse University; chief of the pediatric service of the University Hospital of the Good Shepherd. Price $5.00. The Macmillion Co., 60 Fifth Avenue, New York, New York.

This book is designed especially for the general practitioner, but should be a valuable reference work for the young physician about to leave the hospital for practice in the field of pediatrics. The author has devoted considerable space to the procedures usually found in textbooks of nursing, but the practitioner will find in these chapters valuable hints which will be welcomed by mothers who must care for their sick children in the home. The indications, contraindications and dangers of such procedures as paracentesis of the middle ear, thoracentesis, intubation have been stressed. The chapters on normal nutrition and the disorders of nutrition in infancy and childhood are very complete. The care and feeding of the premature infant is more thoroughly discussed than in most works of this nature. The author has included, with wise conservation, the more recent successful methods of treatment used in the field of pediatrics. The management of the ketogenic diet in epilepsy and urinary tract infections, and the use of typhoid-paratyphoid vaccine in the treatment of Sydenham's chorea have been

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discussed in detail. However, in the discussion of the prophylaxis and treatment of rickets, no mention has been made of the usefulness of irradiated ergosterol and halibut liver oil in the premature and debilitated infant whose tolerance for cod liver oil in adequate dosage is limited. In the discussion of beri-beri the text states that it is caused by a deficiency of anti-neuritic vitamin D. No doubt this is a typographical error. An excellent bibliography is included at the end of each chapter. The reviewer feels that the author has dealth with a difficult subject with unusual clarity and thoroughness. K.B.M.

The Stomach and Duodenum. By George B. Eusterman, M.D., F.A.C.P., Head of Section in Division of Medicine, The Mayo Clinic; and Donald C. Balfour, M.B., M.D., (Tor.), LL.D., F.A.C.S., F.R.A.C.S., Head of Section in Surgery, The Mayo Clinic, and Members of the Staff, The Mayo Clinic. W. B. Saunders Company, Philadelphia and London, 1935.

The work represents an excellent compilation of the knowledge, experience, and opinions of the Mayo Clinic group in regard to disorders of the stomach and duodenum. Due consideration is given to most of the phases of the conditions which directly or indirectly involve these organs. Certains phases of the subject, however, are treated with more brevity than seems warranted; the subject of gastroscopy, for example, (which is rapidly assuming a very important place in gastric diagnosis) is relegated to less than one page. The authors present a well-balanced and sensible evaluation of psychogenic factors in causing disturbances in this region, but then dedicate only four pages to treatment of this important phase of the problem. In the discussion of medical treatment of duodenal ulcer only modified Sippy regimen and gastric mucin are given sufficient consideration. In the chapter on anemias following operations on the stomach, pernicious anemia is dealt with as adequately as is necessary for the purposes of the book, but hypochromic anemia is referred to a "secondary anemia" and is explained as being due to dissimilation of antianemia factor, rather than being due to iron deficiency in association with achlorhydria.

The subject of malignancy complicating gastric ulcer is stressed to the extent that one feels that it is almost the theme of the book. Even though but little reference is made to the contrary opinion of others on this subject, the authors sound a warning (in relating gastric neoplasm to chronic ulcer) that should not be passed over unheeded. In attempting to correlate the chapters on surgical pathology and roentgenologic diagnosis, the reader finds himself puzzled as to whether he should consider ulcers on the greater or on the lesser curvature as having the greater chance of becoming malignant.

In general, it is felt that the book is made unnecessarily lengthy by much repetition which could be avoided but it serves the purpose of correlating a mass of important information and is well organized in its order of presentation. For the most part, the authors' opinions are supported by well chosen references to the literature, although some chapters are entirely lacking in the same. Indications for various surgical treatments are clearly and adequately discussed, and the descriptions of operative techniques are supported by good illustrations. Surgical complications and poor results, and treatment of the same are discussed with fairness. One is well impressed by the manner in which the various disorders and their managements are laid down to fundamental principles. The chief contribution of the book lies in its presentation of a wealth of experience from a highly reliable source. E.M.B.

A Textbook of Bacteriology. By Thurman B. Rice, A. M., M. D., Professor of Bacteriology and Public Health at the Indiana University School of Medicine, 441 pages with 121 illustrations. 1935. Cloth, $5.00 net. W. B. Saunders Company, Philadelphia and London.

For the physician who wishes chiefly to find a guide to specific therapy and prophylaxis, to methods of disinfection, and to the bacteriologic techniques which he will himself employ as diagnostic aids, the book may suffice and will in many instances prove definitely helpful.

For medical students whose curriculum will include only one course in bacteriology the book is quite inadequate in its presentation of a number of underlying bacteriologic and immunologic facts and principles and of diagnostic methods.

For the physician desiring to review bacteriology generally or to make special inquiry into some particular field the book has a number of disqualifications: the lack of bibliography; the failure to indicate mechanism of anaphylactic and hypersensitivity reactions or to discuss the biochemical basis for positive Wassermann and other diagnostic tests for syphilis, the failure to present the more recent findings concerning a number of organisms; the errors in statement of blood groups possible to children in all matings involving an AB individual; the presentation of an obsolete explanation of the mechanism of specific agglutination; the inadequate presentation of the protozoa (if they are to be presented at all, they certainly merit instrinsically and from the standpoint of the student or practitioner of medicine—as thorough consideration as the bacteriophage or electrophoresis). F.E.H.

The Pathology of Internal Diseases. By William Boyd, M. D., professor of pathology in the University of Manitoba; pathologist to the Winnipeg General Hospital, Winnipeg, Canada. Second edition, thoroughly revised. Lea & Febiger, Philadelphia. Price $10.00.

This unique and extremely valuable book has been brought thoroughly up-to-date in the usual facile, readable style of this author. One has a feeling, however, that it has been slightly overdone, and that it might be better if some of the newer evidence quoted had been allowed to ripen a little more be-

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fore being incorporated in a book which is on the whole of such great and lasting value.

One notable omission is the work of Houssay and others on the connection between the pituitary gland and the islands of Langerhans.

Especially important additions are on the subjects of non-occlusive coronary insufficiency, childhood tuberculosis (pulmonary), von Gierke's disease, Encephalitis B, and silicosis and asbestosis. G.R.

Preventive Medicine and Hygiene. By Milton J. Rosenau, professor of preventive medicine and hygiene, Harvard Medical School; Professor of Epidemiology, Harvard School of Public Health. Sixth edition. D. Appleton-Century Co., New York.

Preventive Medicine and Hygiene, was first published in 1913. Since then there have been six revisions; in each one something new has been added and extensive revisions have been effected in order to present subjects in the light of new discoveries. In this, the sixth edition, the following subjects are considered for the first time: Contraception, Maternal Mortality, Heart Disease, Diabetes, Ringworm, Snake Poisoning, Psittacosis, Periodic Health Examinations and Hospitals. Many of the subjects which have appeared in previous editions have been completely revised and rewritten to give them the interpretations and implication brought out by new knowledge.

By frequent revisions, such as this edition represents, Dr. Rosenau has kept alive a text-book which has been an authoritative source of information for medical students, teachers, health workers and physicians for almost twenty-five years. Dr. Rosenau's wide experience as a public health worker and teacher and the authoritative position occupied by his co-authors, insures this work another period of dominance in the broad field which it covers.

This review has been a pleasure. For many years a copy of this book has been in my reference library and in constant use. The new material presented in this edition makes easily available information which is widely scattered in the literature.

The book is highly recommended. W.D.S.

Modern Home Medical Adviser. By Morris Fishbein, M. D. Price $9.50. Doubleday, Doran and Company, Publishers, Garden City, New York.

Dr. Fishbein and his twenty-three eminent collaborators are due to be congratulated on their offering of a family medical guide of truly encyclopedic proportions.

The book, attractive in make-up and surprisingly up-to-the-minute in detail, owes thirteen of its thirty-three chapters to the crusading pen of the J. A. M. A. editor. His style is plain but never condescending; and if some of his words are barbed, none is borrowed.

One hundred thirty-six halftone and linecut illustrations range from reproductions of roentgenograms and anatomical charts to quaintly animated maps of bodily systems, and prove gratifyingly as integral a part of the text as are the printed pages.

Sensible is the word best describing the presentation to the laity of basic facts that might easily have been tediously technical. Practical and logically sequenced advice, not vague generalities, covers every eventuality from choice of a competent physician to that of a mate, from birth control to girth restraint, from making a bed to selecting a toothbrush.

Especially valuable for parents and teachers, whether for personal or instructional needs, is the chapter on sex hygiene. It is handled with frankness, presented with delicacy, and the approach is vital and sanely modern.

Remarkably few statements deserve challenge. One, "that practically everyone has had the disease (tuberculosis) by the time he is fifteen" is not supported by presently available statistics.

Common diagnostic and prophylactic aids are lucidly explained and rendered attractive and reassuring. Prevention is the keynote, early diagnosis the complement. Supplementing but not supplanting the doctor's contact with his patients, this volume should go far toward removing the physician from the witch-doctor category in the minds of the misinformed.

Sadly enough, and humanly ironic, emerges the observation that the price is likely to keep the Modern Home Medical Adviser off the bookshelves of those who not only most need it, but would most appreciate it. C.E.L.

DIPHTHERIA

(Continued from page 211)

intubation persists beyond the usual length of time.

2. Cases of prolonged stenosis due to pathologic changes which have arisen during or subsequent to the primary intubation and are not those of the diphtheritic process which necessitated the primary intubation. Such lesions are due:

a. to the injurious effect of the intubation tube upon the structures of the glottis, larynx, or trachea,

b. to traumatism produced by the operator, either during the intubation or extubation.

3. Cases of persistent intubation due to paralysis of the vocal cords:

a. temporary paralysis or spasm,

b. persistent paralysis.

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These pathologic lesions usually consist in a hypertrophic form of subglottic laryngitis, —pressure ulcers of varying depth, granulation at the base of the epiglottis, cicatricial strictures or abscesses.

The treatment consists in avoiding tracheotomies as long as possible with palliative rest measures but elective tracheotomy must be resorted to after a fair trial. Intubation and tracheotomy are mutually supplementary to each other, each one with its own indications. I have performed over one thousand intubations on pathological laryngeal cases and on only a few occasions was a tracheotomy indicated. Intubation is a safe, speedy, bloodless and nearly painless procedure, whereas, tracheotomies are challenging to the patient, terrifying to the parents and fraught with greater danger in the after care. Kelly[3] states tracheotomy may be required in laryngeal obstruction:

1. Where intubation instruments are not within reach and the case is an urgent one,
2. Where no physician trained in the operation of intubation is at hand,
3. Where intubation has been tried and has failed to relieve the obstruction, either because of extreme swelling and edema of the fauces, tonsils and epiglottis, or owing to the presence of membrane below the tube.
4. As a secondary operation when accumulation below the tube cannot pass through it and are not expelled when the tube is removed.

Most pleasing in Chart No. 3, is the graphic downward curve indicating the decrease in the number of laryngeal cases in our hospital. Only those who are constantly in attendance on this type of disease can appreciate the significance of this downward curve. It has been our observation that in primary laryngeal diphtheria we do not have the absorptive index of toxins that occurs in the secondary and, therefore, we have noted fewer complications. It may be added that fewer complications occurred during convalescence in any type of laryngeal diphtheria than in the faucial type.

The following case record will exemplify the findings in an exaggerated laryngeal case. Not infrequently during the process of intubation a plug or piece of cast will fill the lumen of the tube causing a complete obstruction. On rapid removal of the tube a large cast will adhere to the lip of the tube revealing the outlines of the tracheal rings.

CASE RECORD

Mrs. L. G., 1926, 28 years of age, was transferred from a private hospital because of marked laryngospasm and a positive tracheal culture. There was exaggerated accessory muscle pull of the chest wall, opisthotonus, and xyphoid retractions, anxious facies with an accompanying cyanosis.

The largest O'Dwyer tube was inserted on six occasions and left in place with no relief in the stenosis. The patient kept pointing to the sternal notch; attempting to point out the embarrassed area. A tracheotomy was performed the second day but without relief and the patient died twenty-four hours after entrance to the hospital.

The postmortem findings: A pseudo-membrane was found in the sublingual region of the throat. A thin film of membrane was present over the entire larynx; at the bifurcation of the trachea was a thick gray cast folded on itself completely obstructing the bronchi. This must have broken off during the course of intubation. This cast revealed a continuity to the bronchi, bronchioles, and smaller ramifications of the lung, and was removed in toto for teaching purposes. It had the appearance of a water-frosted Christmas tree with its smaller branches which penetrated into the bronchioles.

SUMMARY

Diphtheria is fulfilling the ideal desire of the medical profession in that formerly entire wards of a fever hospital were devoted to the treatment of this disease, but since the biological tests and active immunization have been instituted most gratifying changes have taken place. The tragic croup cases have automatically disappeared proportionate to the absence of the faucial type of diphtheria.

CONCLUSIONS

1. In the past eleven years, 2,599 cases of diphtheria and diphtheria carriers were treated by the writer.
2. The death rate for the total series was 9.2%, but the records reveal a yearly decrease in the number of deaths with a changing ratio of the number of cases occurring.
3. The toxic myocardosis of diphtheria is best treated with daily intravenous injections of hypertonic glucose solution.

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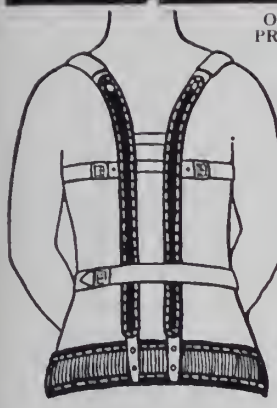

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BIBLIOGRAPHY

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IN THIS ISSUE

OBLIGATION OF MEDICAL SCIENCE
By E. J. Carey, M. D.
RUPTURED APPENDIX
By C. W. Eberbach, M. D.
UNDULANT FEVER
By L. V. SPRAGUE, M. D.
CHOLECYSTECTOMY
By W. J. Tucker, M. D.
OIL PNEUMONIA
By Gorton Ritchie, M. D.

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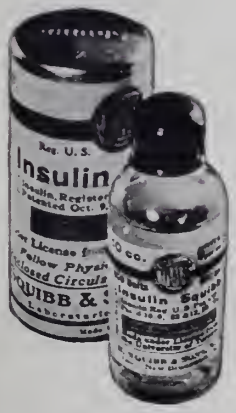

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10:00 A.M.	Breast	Breast	Bottle	Bottle
2:00 P.M.	Breast	Bottle	Bottle	Bottle
6:00 P.M.	Bottle	Bottle	Bottle	Bottle

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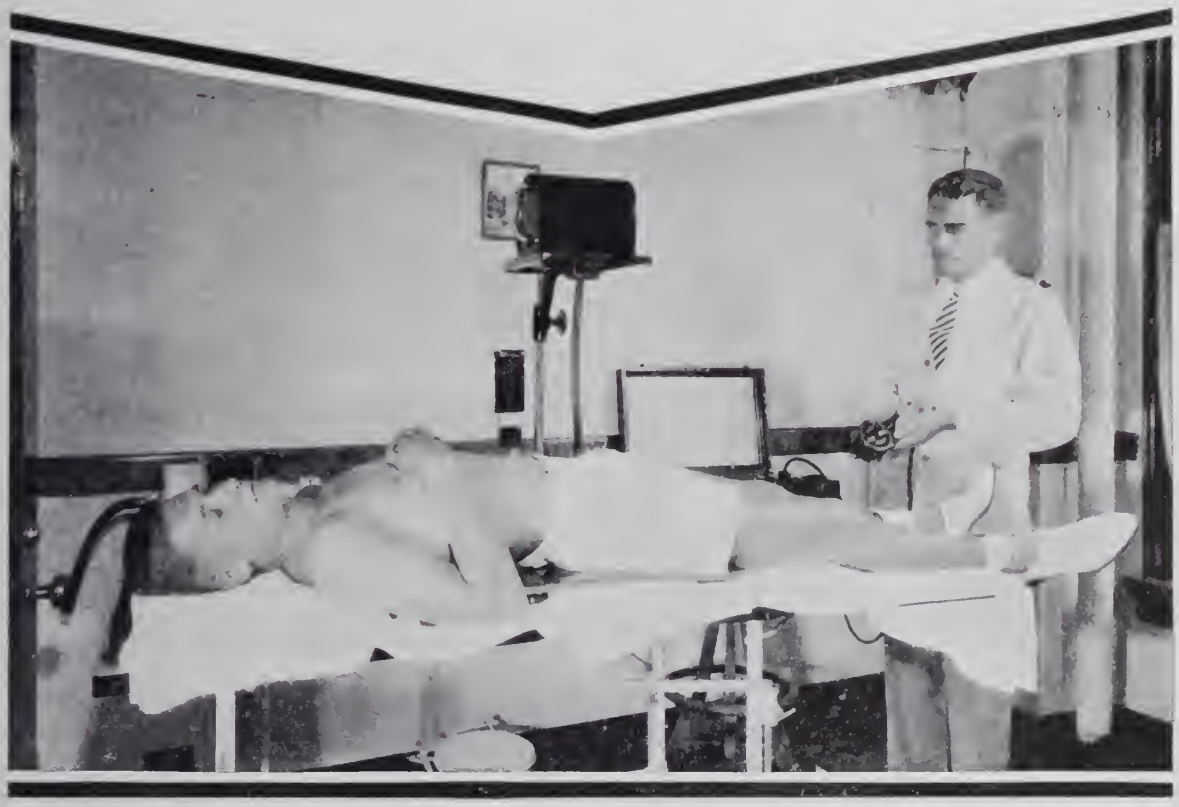

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CANNED FOODS AND THE PUBLIC HEALTH

III. Chemical Preservatives

• Some of our readers have inquired as to whether or not chemical preservatives are used in commercially canned foods. In certain instances, this question was inspired by the fact that "canning compounds" were formerly sold for use in home canning and preserving operations. Such compounds, however, are rarely used by the housewife of today, and never by commercial canners.

We wish to state here that *no preservatives are used in commercially canned foods.*

Spoilage of food is principally caused by the growth and multiplication in food of microorganisms such as yeasts, molds, or certain types of bacteria. These microorganisms depend upon the food they inhabit for their nutrition and their life processes produce changes in the chemical or physical characteristics of food, or both. These changes lead us to state that the food has "spoiled".

Like other living organisms, these spoilage microorganisms can grow and multiply in a food only as long as conditions remain favorable for their existence. If any environmental factor, such as temperature, moisture or acidity, becomes unfavorable, these spoilage organisms are destroyed, or their development is inhibited.

All methods of food preservation have a common underlying principle; they all alter some factor or factors in the food environment so as to render conditions unfavorable for the growth or development of spoilage organisms in the food.

Thus, foods may be preserved by freezing or refrigeration, which serves to lower the temperature below that optimum for growth of certain spoilage organisms; dried foods keep because the moisture content has been reduced to an unfavorably low level; certain fermented foods keep because of the development of high acidity. All of these methods produce changes in the environment in which the food spoilage organisms must live.

Commercial canning is a method of food preservation in which the temperature factor in the environment is raised to a level above that optimum for growth of spoilage microorganisms. Thus, canned foods keep because in their preparation they are subjected to heat processes in hermetically sealed containers. The thermal processes raise the temperature of the foods to those temperatures at which the most resistant spoilage organisms present cannot grow or survive. (1)

The hermetic seal insures protection against future infection of the food by such organisms.

Thus, commercial canning is a method of food preservation which has for its basis the thermal destruction of spoilage organisms; no chemical preservatives are needed to insure preservation of the foods, and, consequently, none are used.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

(1) The Microbiology of Foods, F. W. Tanner, Twin City Pub. Co., Champaign, Ill., 1932

This is the eleventh in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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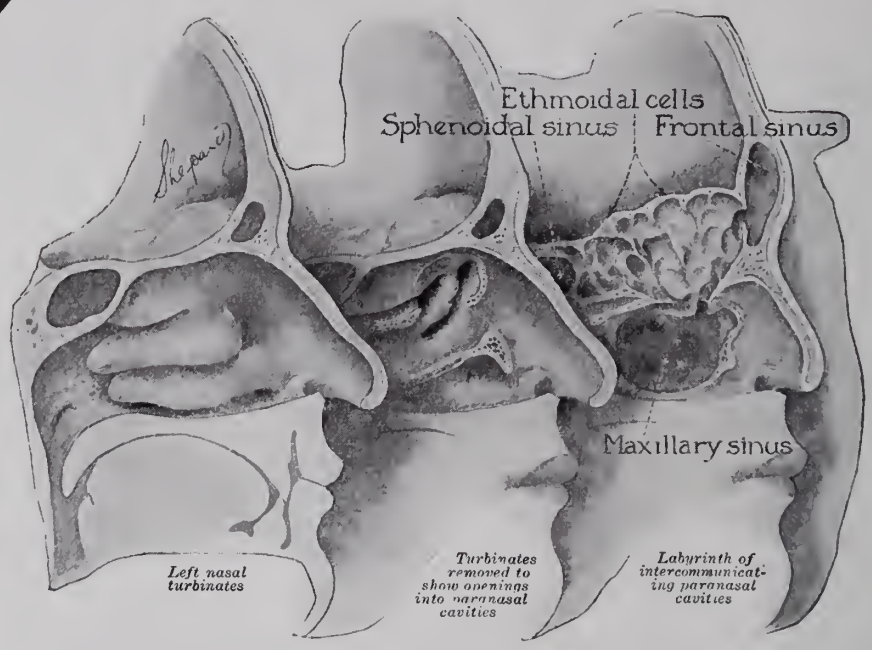

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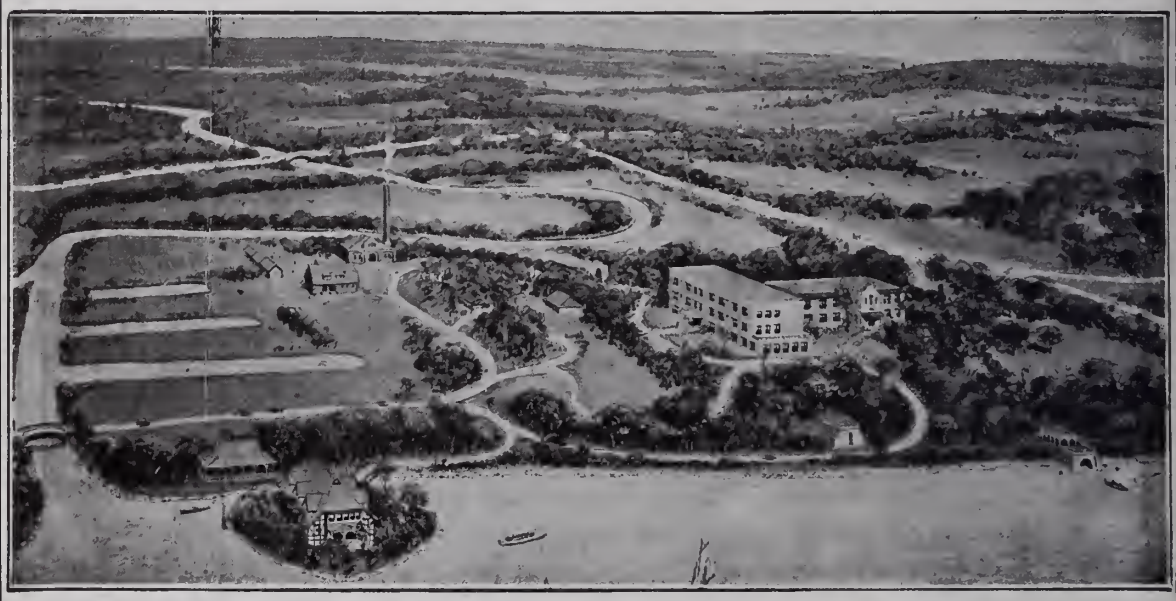

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THE WISCONSIN MEDICAL JOURNAL

Volume XXXV APRIL, 1936 Number 4

Obligation of Medical Science to the Public*

By EBEN J. CAREY M. D.

Dean, Marquette University School of Medicine, Milwaukee

WE ARE all familiar with the obligation of medicine to the public but to a large extent we very frequently forget that each of us in our own community should be the interpreter of medical science for the laymen. This interpretation is our individual duty and not only that of a public health society or some other larger organization.

While we are meeting together to learn various advances in operative technique and new ideas and contributions to medicine, there are others at this time on Wisconsin Avenue in Milwaukee who are contacting the public and giving to them a booklet of black magic, tearing down the work we are attempting to follow through.

Listen to this "Diagnosis." It is put out by the National Antivivisection Society and a number of other organizations. They record in this black booklet: "If it is agreed that correct diagnosis is the most important single factor in the treatment and cure of bodily disorders, that a system which handicaps rather than helps physicians in their efforts to determine what is wrong and what can be done about it, ought to be abolished; dependence of the medical profession on and its faith in animal experimentation is directly responsibile for the appalling inability to diagnose accurately abnormal conditions of the human body, it must not be assumed that the profession is a unit in supporting vivisection, at least privately, although public approval of the practice is mandatory if a doctor wishes to avoid expulsion from the American Medical Association and State Medical Society."

This booklet also states: "In 1932, the Antivivisection Society of Chicago sent out a questionnaire to the members of the American Medical Association asking their opinion on the practice. Thirty-four per cent of those replying declared themselves opposed to vivisection or any particular form of dissection. They did not think animal experimentation or even dissection on the human body had any value in the diagnosis of disease.

"Vivisection is the first and only system for which it has ever been argued it should be continued, enlarged and increased, because it has a record of complete failure."

The above is a jumble and confusion of words to befog the public in regard to methods used by medical science. We are not erecting a straw man simply to punch him down. Do you realize that from January 9, 1935, up to August 24, 1935, there were over 1,500 bills introduced in the legislature[1]? To those 1,500 bills about 2,500 amendments were added which made over 4,000 pieces of legislation that were considered by a group of laymen, the majority of whom have little knowledge of the basic medical sciences but are making the laws regulating the practice of medicine.

Of those particular bills, 127 directly affected medical education and the practice of medicine in this state. If only twelve of the bills had been put into effect, they would have abolished all that has been gained in medical advance in the last 2000 years.

The subject of a few of the bills of interest to physicians and involving medical science and art, are listed below:

1. State Aid to Hospitals Caring for County Charges.
2. Free Choice of Physicians.
3. Workmen's Compensation Act.

* Presented before the 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, September, 1935, and before the Interurban Academy of Medicine, Wednesday, March 18, 1936, Superior, Wisconsin.

[1] Report of Legislative Work of the Committee on Public Policy. Wisconsin Medical Journal, September, 1935, Vol. XXXIV, No. 9, pp. 657–673.

4. Commitments to Hospitals for Insane.
5. Sales tax of Physician's Equipment.
6. Burial of Indigents.
7. Securing Dogs for Scientific Purposes.
8. Medical Relief in Milwaukee County.
9. Chiropractic Title "Doctor."
10. Chiropractors Exempt from Basic Science Law.
11. Chiropractors Treating Compensation Cases.
12. Tests for Intoxication.
13. Administration of Silver Nitrate.
14. Antivivisection.
15. Social Security.
16. Cosmetic Act.
17. Silicosis.
18. Taxation of Property Owned by Scientific Societies.
19. Sterilization.
20. Institute for Paralytic Children.
21. Pharmacists.
22. Narcotic Drug Act.
23. Blood Tests.
24. Vaccination.
25. Typhoid Carriers.
26. Dentistry.
27. Birth Records.
28. Medicinal Liquor Permits.

One bill introduced in three different forms was to abolish any particular type of animal experimentation in medical schools; in other words, directly affecting medical education and the preparation of the physician. Other bills would tend to tear down the basic science law and advances made in that particular direction. In addition, there were bills introduced that would give, without any discrimination, the title "doctor" to all naturopaths and chiropractors.

If any of you have ever looked over any of those bills, you will realize the tremendous amount of work accomplished by the Secretary and Committee on Public Policy of the State Medical Society. In analyzing these bills, you will find they are a barrage of words, and the main purpose of certain ones is to confuse the real meaning.

OUR OBLIGATIONS

These events are being carried on in the State of Wisconsin while we are more or less complacently listening to reports of scientific advances, and relatively ignoring the public. To a large extent, this condition is due to the lethargy within our own ranks and because of the lack of ordinary human inertia to take the proper steps. When an eastern medical journal publishes an editorial of the following type, which shows more or less the attitude that nothing needs to be done about it because nothing can be done, it is time we, as physicians, realize our obligations as teachers of the public in matters pertaining to medical science and art:

"Have you ever tried to explain the pathology of pernicious anemia to a layman? Have you ever attempted to discuss the physiology of the heart with the cardiac patient whose educational attainments were limited to the sixth grade or even less? Were you ever so mentally unbalanced that you tried to explain basal metabolism to a patient with hypothyroidism? If you have, you have doubtless come to the realization that it spells utter futility. It takes about ten years for a medical education and the end result often leaves much to be desired.

"The evolution of medical education usually follows the following cycle: The first year student, at the end of the year, believes he knows enough about medicine to accept a professorship. Second, the sophomore begins to doubt. He thinks there may be a few things he can still learn. Third, the junior begins to wonder if he is really learning anything about medicine; fourth, the senior reaches the conclusion that he is a medical ignoramus; fifth, the intern is usually too busy with the nurses to absorb much. (This is a false indictment of the excellent internships offered by first class teaching hospitals.) His spare time is devoted to teaching the staff and attending physicians; sixth, the first five years in practice are the beginning of medical cerebration, the practitioner learns to think; seventh, the next fifteen years may result in a halo of brilliance around the cranial or tendency to cerebral degeneration.

"During the next ten years the blood pressure, nerves and arteries become sclerosed and the ground broken for the initial ground of antique. During the next ten years, the doctor who has not sprouted wings in the

interim is taken up with reminiscing, the hand trembles, the beer stein raised, a great deal of mental confusion, the doctor is outdistanced by medical advances and sits at medical meetings listening to some young squirt tell about the modern treatment of acute appendicitis. He dies wondering what it is all about."

After this serious editorial of pessimism, the author finally came to the conclusion:

"I am fairly in accord with the idea of educating the people in matters of disease prevention."

This editorial shows there is a tremendous amount of work to be done right within our own particular ranks. To overcome these notions that nothing can be done about it and to leave conditions just as they are. If that were the attitude in Wisconsin in relation to your medical society, how much do you think could have been accomplished? The legislative activities that have been carried on during 1935 and the thousands of letters that were sent out by various institutions and various other associations that were cooperating with you to bring pressure upon the senate and assembly was of the nature of an educational campaign to enlighten legislators about the truth of medical science.

Those of you who have ever appeared before a committee, whether it be the educational committee of the State legislature or any of the other committees and listened to the tirade of untruth and ignorance that is presented before those men, and then try to present the truth, are sometimes liable to get the notion there is a futility in regard to the whole problem. But is that true?

PUBLIC EDUCATION

Education, no matter in what line it may be, is a slow, patient, persistent process. It is not going to come by any quick act of inspiration, but by the slow process of perspiration. First we must plan our work and then work the plan.

It is up to the physicians here in Wisconsin, and I think the time has come when along with our scientific exhibits, industrial exhibits and hobby exhibits at each of our annual meetings, we should have a popular medical exhibit for the laymen. Then while we are in our executive sessions and in our business and scientific sessions, we are not only keeping abreast with modern advance, but are acting likewise as the interpreter to the laity of advances that have been made in medicine in the past. We may attempt to bring to the public each year a knowledge of medical science, upon which the practice of medicine is based.

This is not a program just for this year and next, but one that will take twenty-five years to fully accomplish its objective. To overcome the false ideas that have been established regarding some medical beliefs is going to be a slow tedious process. While we are attempting this particular educational program, you can expect the hard and fast pounding opposition of the antivivisectionists, the chiropractors, naturopaths and all other cults who have their particular program. They are well subsidized and have money to spend not only for public propaganda, pamphlets of all types, but also to bring together various assemblies of the laity and particularly lobbying in the legislature before committees of the senate and assembly.

This particular program could be carried out to the best advantage by having simple exhibits of anatomy and physiology and the changes in the body that are the results of disease.

I do not mean, in any particular manner, that we are to teach the layman how to cure himself, but to enlighten him as to the cause and seriousness of disease, for the layman is most interested in the true mechanism and the functions that are taking place within his body. If we can overcome some of the mysticisms that have been established in the past we will have a more intelligent public to meet and their confidence can be established which will bring about a closer cooperation between the patient and physician.

HEALTH EXHIBITS

That the public is becoming health-minded was demonstrated by the increasing daily attendance at the health exhibits in the Hall of Science at the recent Chicago World's Fair.

If the plans of the Scientific Exhibit Committee of the American Medical Association and the group at the Museum of Science and Industry in Chicago materialize, there will be housed in the beautiful museum in Jackson Park on the south side of Chicago, an exhibit of medicine not only in permanent form but also a traveling form which can be transported to all parts of the country wherever an organization, such as the State Medical Society of Wisconsin, has a meeting, for the purpose of enlightening the public on particular fundamental subjects as anatomy, physiology and pathology.

The museum known as the Rosenwald Museum of Science and Industry was rebuilt on the spot of the old Field Museum at a cost of five million dollars. Only one-tenth of the interior of the building is completed; the section in the interior that will house the medical science exhibits has not been completed as yet. In spite of the fact that only about one-tenth of the proposed exhibits are in place now, the city schools of Chicago are utilizing what is there at the present time in a general science education of the students of Chicago. Last year there were over 400,000 school children alone taken through in small groups of ten to view these various exhibits. You can realize the tremendous opportunity that medicine would have to carry through a comparable program.

As Mr. Rufus C. Dawes, President of the Museum of Science and Industry of Chicago, has said, "What is a museum of science and industry if the basic thing upon which it rests, health, is absolutely neglected?" This section will be placed there through the efforts of Mr. Dawes, under the advice of one of our own past-presidents of the American Medical Association, Dr. William A. Pusey, who was Chairman of the Medical Advisory Committee of the Chicago World's Fair and Museum of Science and Industry of Chicago.

One of the exhibits of a dynamic nature already in place in the Museum of Science and Industry illustrates to high school students the process of testing the various types of materials in tension and compression. Another exhibit shows the various types of perfumes and products derived from coal tar. Those are exhibits, to a large extent, that are fundamentally educational. and you would be surprised to see the way these students take to this type of education rather than the ordinary science instruction without demonstration.

Doctor E. H. Cary, Past President of the American Medical Association, of Dallas, Texas, spoke to us last night in regard to the means they are contemplating using to exhibit the Story of Life at the Texas Centennial Exposition. One of the reasons he felt confident to go ahead with that program is because both Dr. Pusey and Mr. Rufus Dawes have pledged support to the Texas Centennial Exposition to help them tell the Story of Life with some of the exhibits that were housed in the Hall of Science and are now in storage until the completion of the medical section of the Museum building. Some of these exhibits will be shipped to Dallas, Texas.

. . . Showing of slides relative to the exhibits in the Museum of Science and Industry, Chicago.

After going through a tremendous amount of experimentation, as this editorial I read to you shows, one realizes the futility of the mind when it first tackles a problem. Doctors Herman Kretschmer and Charles M. McKenna realized that, as they went through this from the ground floor up in depicting the story of urology to the public. The first concept was to gather exhibits from all over the United States, which every urologist had, and finally to make a selection. Through that particular committee they finally struck on an idea and brought out a few simple ideas that the majority of doctors forget. They realized the layman has not even started his education in medical sciences and they have to bring him the fundamental alphabet upon which medicine is based. They took up simple things such as pus in the urine, stone in the kidney, enlargement of the prostate gland, explained the simple anatomy of those particular relationships and what took place when pathological changes occurred. The exhibits told a clear simple story.

I pass these things in review simply to show you we do have ways and means of

overcoming this particular deficiency of our contact with the public. One of the best means of counteracting quackery, particularly cultism, and the pernicious legislative measures that have been coming up during the last year in the legislature in Madison is to start a campaign and plan the program for the annual meetings of the State Medical Society to include education of the public as well as our own scientific and social advancement.

CONCLUSION

At each annual meeting of the State Medical Society of Wisconsin, especially when held in the Milwaukee Auditorium, there should be a popular exhibit of medical science for the layman. The resources of all organizations interested in medical science and the objectives of organized medicine, and our two universities of Wisconsin, could be mobilized to present a united front for the benefit of the health of the public and the individual patient.

Has the Pendulum Swung Too Far in the Conservative Treatment of the Ruptured Appendix*

By CARL W. EBERBACH, M. D.

Milwaukee

IT APPEARS that no medical meeting is complete without a discussion of appendicitis, though a casual glance at the medical literature would suggest there is nothing left to be said. Nevertheless we feel that a curable lesion which boasts a mortality of more than 14 per 100,000 (Table No. 1), particularly in the first three decades of life, deserves constant attention to keep alive the interest not only of the physician but also of the patient. Over 100 years ago, (1827) Mêlier described the pathology of appendicitis and predicted that with the removal of the appendix, the disease might be cured. It remained, however, for Fitz, 60 years later, to persuade the medical profession that the appendix was the real seat of most of the acute infections in the right lower quadrant of the abdomen. Physicians and surgeons at that time were chiefly interested in the diagnosis and treatment of peritonitis. With experience, education of the public and improved surgical technique, the early high mortality was rapidly reduced until a more or less stationary death rate has been reached in recent years.

In 1902, Ochsner importantly contributed to the management of the ruptured appendix by his conservative method of treatment. Many lives which might otherwise have been lost were salvaged from an apparently hopeless group of patients. The Ochsner treatment, however, was frequently misinterpreted and abused by his less skilled contemporaries, which offset to a degree the value of his teachings. As early operation met with greater success, there was less occasion to use the Ochsner method, and the dictum "operate when the diagnosis is made" held sway for many years at the hands of most surgeons, to the exclusion of all other procedures. During the last five years, however, the pendulum has begun to swing the other way. Many of our ablest surgeons, working under ideal conditions, have made critical analyses of their deaths in an effort to reduce their mortality. Obviously, except for inevitable surgical accidents, these occurred among the cases of advanced peritonitis. If, they argued, immediate operation is unsuccessful in a large percentage of

Table No. 1

SHOWING COMPARATIVE DEATH RATES MILWAUKEE, WISCONSIN, AND UNITED STATES

	1932		1933		1934		
	No. of Deaths	Rate	No. of Deaths	Rate	No. of Deaths	Rate	Estimated Population
Milwaukee ..	78	13	83	13	84	14	600,000
Wisconsin ...	400	13.4	416	..	419	14	3,005,000
United States—(Registration Area)	17,111	14.2	17,717	14.1	18,129	14.3	126,425,000

* Presented before the 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, September, 1935.

these cases, why not try the conservative treatment first, allow the peritonitis to localize then operate later under more favorable conditions. It is the management of these cases that I want to discuss briefly today.

The death rate in unruptured cases of appendicitis is practically negligible at the hands of competent surgeons. It is generally agreed that late diagnosis and purgatives are the chief factors that make for our high mortality. Until we have educated the doctor and patient sufficiently to eliminate these causes, any reduction in the death rate depends upon the surgeon's ability to deal with the ruptured appendix. During the last 30 years favorable results have been reported from combined conservative and operative treatment in gangrenous appendicitis with spreading peritonitis, but has not importantly influenced the average surgeon. In recent years, however, a wide-spread interest in this type of treatment has become manifest. Taylor and Schmidt[1], in a comprehensive study of their cases of appendicitis at the Wisconsin General Hospital, have shown a lower mortality among those cases with ruptured appendix treated conservatively than those operated upon. Coller and Potter[2] have succeeded in reducing their mortality in cases of spreading peritonitis by what they very aptly called "deferred operative treatment" to 9.4%,—a very remarkable achievement. The reported experience of Love[3], Guerry[4] and others support these observations.

There can be no doubt about the importance of deferred operative treatment in advanced cases of peritonitis resulting from a ruptured appendix at the hands of men of wide experience and sound judgment. My interest in the subject has been stimulated, however, by the misinterpretation of these procedures chiefly by the younger men in general practice who are the first to see the vast majority of these patients. With their enthusiasm for any successful procedure, there is a wide-spread tendency to adopt the conservative method of management in all patients apparently seriously ill with appendicitis. During the past few years, I have repeatedly been consulted to decide upon the advisability of deferred operative treatment. In every case immediate operation was indicated, and in no case was the appendix ruptured. This experience strikes the keynote of my message to you this afternoon. We have in the deferred operative treatment an important therapeutic measure whereby many lives may be salvaged from the ravages of spreading peritonitis, but let us study its advantages and limitations with the greatest care. Its advantages may very easily be offset by its abuses. In his paper before this Society last year, Tormey[5] likewise warned us of the pitfalls in the management of these patients.

SELECTION OF CASES

Of first importance is the selection of cases. Much emphasis has been placed on the duration of the disease after the onset of symptoms. As some patients may have spreading peritonitis in 36 hours, while others may have safely walled off abscesses for weeks, the time element is unimportant. There is no characteristic clinical picture of spreading peritonitis, and I doubt that any man, no matter what his experience, can accurately diagnose this lesion at all times. The problem, therefore, becomes one of surgical judgment in the individual case. Patients to be considered for deferred operative treatment are those with rapid, thready pulse, generalized rigidity and tenderness of the abdomen, cold clammy skin and marked loss of fluids due to vomiting. Those who have been transported long distances, especially in extremely cold or hot weather, contribute importantly to this group. Of the signs and symptoms indicating the extent of peritoneal involvement, the pulse is by far the most reliable. One of the earliest signs in peritoneal infection in acute appendicitis is increased pulse rate, with increasing rate as the peritonitis progresses. Abdominal rigidity and tenderness, on the other hand, are not accurate guides to the extent of the peritonitis. Not uncommonly we see a rigid, tender abdomen when the peritoneal involvement is well limited to the pelvis. I observed this from time to time before duodenal tube drainage was a common practice and high enterostomy was done to decompress the small intestine. In two cases, in which I performed this operation upon pa-

tients believed to have spreading peritonitis, there was no infection in the upper abdomen at all, though there was considerable distention of the small bowel and increased peritoneal fluid. Frequent vomiting, cold, moist skin and dry tongue may likewise occur in well localized peritonitis. They result from small bowel obstruction in the pelvis and are usually relieved by operation with subsequent duodenal drainage, and fluid and chloride replacement. The temperature and leucocyte count were not mentioned above as important signs and symptoms leading to the diagnosis of spreading peritonitis because they are notoriously unreliable. Within the year one of our patients died with spreading peritonitis after prolonged observation with a white blood count of 6,300, which dropped to 4,000. Now and again a subnormal temperature is observed. In our experience, however, most patients with advanced peritonitis have a high leucocyte count (15,000 to 22,000) and high temperature (103° to 105°). I bring these observations to your attention to point out briefly the great difficulties in diagnosing spreading peritonitis, which I think is of first importance. If we fail to accurately diagnose this lesion, and include cases, which, when first seen, apparently belong to this group because of the severity of symptoms, but actually do not, we will raise our mortality rather than lower it by conservative treatment.

It has been shown clinically and experimentally (Buchbinder)[6] that during the spreading stage of peritonitis, the mortality is reduced by removing the septic focus. The peritoneum may resist the initial onslaught of infection from the perforated appendix, but cannot resist repeated infection unless it is walled off. It would seem therefore that early operation is logical. A recent unpublished study of our acute appendicitis cases by my associate, Dr. Curtis A. Evans, has brought out some interesting observations on the results in the management of appendicitis when operation is performed immediately, or within a few hours after the diagnosis is made. There were two cases in which operation was deferred 12 hours. During the past ten years, we performed 1,270 appendectomies for appendicitis. 126 were interval cases with no deaths. 966 were operated upon for acute or gangrenous appendicitis with one death from coronary disease. There were 178 cases of ruptured appendix complicated with varying degrees of peritonitis. Ten deaths occurred in this group with a mortality of 5.6%. Our mortality including all cases was .8%. Excluding the 126 interval cases, it was .9%. These results support our belief that immediate operation will make for a lower mortality in the management of the ruptured appendix than the conservative method.

RUPTURED APPENDIX—MANAGEMENT

In severe cases 1000 cc. of 10% glucose in normal saline together with ¼ gr. of morphine and 1/100 gr. of atropine are given pre-operatively. We regard deep ether anesthesia as of first importance, unless there are definite contraindications as acute upper respiratory infection or pneumonia. Deep anesthesia permits of rapid, well-controlled surgery. I have no doubt that many lives have been lost by poorly administered anesthetics, which allow the gut to be forced into the wound with consequent dissemination of infection.

In the vast majority of our cases, the McBurney type of incision was used, placing it high or low, depending upon the probable location of the appendix. Mont Reid[7] showed a 50% reduction in the mortality from appendicitis at Cincinnati General Hospital by a change from the right rectus to the McBurney incision alone. The advantages are well known, but bear repeating. The approach to the cecum is direct and its position is fairly constant. The base of the appendix therefore is quickly and easily located, no matter whether the tip lies in the pelvis or below the liver. Soiling the peritoneum is reduced to a minimum. Drains may be placed along the parietal peritoneum rather than among coils of bowel. Convalescence is usually shorter and the wounds heal more quickly. Whenever possible we remove the appendix, though were compelled to leave it in 8% of our cases with ruptured appendix.

Drainage has become a much discussed problem. Yates[8] showed 30 years ago that

drains in the peritoneal cavity are walled off almost immediately. This work has since been confirmed many times. The type of drain, therefore, is unimportant, but a tract for the escape of pus is necessary. It is our custom to place a small dressed tube or cigarette drain along the parietal peritoneum to the bottom of the pelvis, or if the abscess happens to be high up in front of the kidney, the drain is placed accordingly. It is loosened the third day and removed on the fifth In our experience, it is unnecessary to pack the wound full of drains and leave them in for ten days to two weeks as is so frequently done.

Postoperative treatment consists in a low Fowler's position, heat to the abdomen, intravenous 5 to 10% glucose in normal saline (2000 to 4000 cc. daily) continuous duodenal suction by the Wangansteen[9] method and sufficient morphine to keep the patient comfortable. I might add that after these procedures are instituted, every effort is made not to disturb the patient. Too often they are worn out in an effort to help them, and are literally killed with kindness.

SUMMARY AND CONCLUSIONS

Appendectomy in uncomplicated appendicitis at the hands of competent surgeons may be done with a negligible mortality.

The existing death rate results chiefly from perforating appendicitis with peritonitis.

Until the purge is eliminated in acute abdominal lesions and diagnoses are made earlier, the only hope for reducing our mortality lies in better management of the perforated appendix.

The principle of deferred operation in dealing with spreading peritonitis is sound and in practice has salvaged many patients from an otherwise hopeless group. This procedure, however, has many limitations, especially in diagnosis and selection of cases. Except at the hands of men with extraordinary experience, its advantages may be offset by its abuses.

Increasing interest in the conservative treatment of diffuse peritonitis is not without danger as it may easily be misinterpreted and misapplied.

A study has been made of 1,270 appendectomies operated upon when the diagnosis was made, except in two cases, with a mortality of .8%. In 178 cases, the appendix was ruptured. The mortality was 5.6%.

These results compel us to favor immediate operation unless the patient is obviously moribund.

In the management of perforating appendicitis with advanced peritonitis, we follow the general rule—when in doubt, operate.

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DISCUSSION

Dr. S. E. Gavin (Fond du Lac): You just heard a splendid paper by Dr. Eberbach. Any attempt on my part to discuss it would be practically a reiteration.

I do not believe the teaching is in that direction, but the impression is going forward in many parts of this country that conservative treatment of acute appendicitis is correct. If there is one principle or any one thing I thought was entirely out it is the conservative treatment of an early appendicitis. It was in vogue to considerable extent thirty years ago.

For many years I have felt that the only hope in reducing the present mortality of appendicitis lies in the continued education, both of profession and laity, of the importance of the diagnosis of appendicitis and early operation. If this current impression of conservative treatment continues, and if it is not corrected, instead of a reduction in mortality in the next few years you are going to see the mortality increase.

So I just want to add my plea to Dr. Eberbach's for early operation in all cases. Of course, it is impossible at the present time, probably always will be impossible, to always get the case early. There

are some cases that always must be treated conservatively.

I would like to present to you some findings of interest to me and I think they should be of interest to everybody, whether or not they are going to be verified by further investigations along that line.

Dr. Edwin Lee Miller, of Kansas City, became stimulated by the fact that Kansas City was having the highest mortality from appendicitis of any city in the United States, and took it upon himself to make a very thorough investigation, based on the records in several of the larger hospitals in Kansas City, as to mortality. He went over records of the past ten years and has a very complete report.

His findings are amazing and they might possibly help us in proving to be a measuring stick to some extent in passing judgment upon whether to operate or not operate a case which has gone beyond the safe early period. It was found that over seventy per cent of the mortality in these institutions in Kansas City were operated the fifth day of the disease.

About ten per cent was the type of case where the attack began with a chill, the fulminating streptococcus type of disease. The balance of the mortality was due to either some surgical accident or those occasional cases that present a leukopenia either at the time of examination or developed subsequently.

Dr. Ochsner, of New Orleans, who became interested in Dr. Miller's investigation, has written Dr. Miller to the effect that last winter he started the same investigation of the records in his own hospital, and finds his corresponds with the findings of Dr. Miller. If that is true, the obvious thing to practice and preach to the profession, as well as the laity, is if you are going to save that fifth day case one should operate on the first, second or third day.

Dr. Henry Gramling (Milwaukee): I wish to compliment Dr. Eberbach on the statement he made of the study of appendicitis and agree with him about the procedure to be followed. I think those are good surgical principles.

The conservative treatment of appendicitis, in my opinion, is a mistake. When you think, as the Doctor stated, that in the United States from twenty to twenty-five thousand people lose their lives annually due to appendicitis, it is a terrible thing. Were we to have that many deaths through rabies or through some infectious disease, a hue and cry would go up. Here you have a democratic disease that attacks every human being alike, whether rich or poor, high or low, and the medical profession has in its power a sword to bring this mortality to a minimum. There is only one way of doing it, to attack the appendicitis as soon as the diagnosis is made, if it is possible to make it. If you cannot make it, I still agree with Dr. Eberbach, remove the appendix.

Show me a surgeon, gentlemen, who says he has never removed a normal appendix and I tell you to look at that surgeon's record, and you will find he has a high appendix mortality. The two are inseparable.

Gentlemen, if there is one thing a banker investigates, when a man applies for a loan, it is the future earnings of that man. So the statistician can estimate the worth of the surgeon for the next ten years because all he has to do is to have the record of the past and he can give you the mortality in figures for the future.

Undulant Fever In Wisconsin*

By L. V. SPRAGUE, M. D.
Madison

UNDULANT fever in Wisconsin has been specifically recognized only since 1928, —no laboratory proof within the state being available until November of that year when the Laboratory of Hygiene first performed agglutination tests. In that year eight cases were reported; in 1929 there were forty-two cases, and in 1930, eighty-three, 1931, seventy-one, 1932, fifty-nine, 1933, one hundred and four, 1934, eighty-six. The most recent figures for this year report fifty-seven cases so far. Until January of 1934 a total of all cases reported in the state was three hundred and sixty-seven which is somewhat lower than the majority of our neighboring states[1]. Iowa reported in a similar time 758, Illinois, 440, Minnesota, 314, Michigan, 252, and Ohio, 524. At that time New York state led with 1,077, with a grand total in the United States of 7,620 for eight years[2]. It is interesting to note that in the states where the larger number of cases are reported there have been serious investigators working and it appears that the higher number of cases reported is due to the work of these men. It is inevitable that a number of cases much greater than those reported have existed and escaped recognition due to unfamiliarity with the disease.

A brief historical summary is interesting. The disease probably has existed since Hip-

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pocrates, but it was not until 1861 when Marston published a detailed and accurate description that it was thought to be a clinical entity. He named it "Mediterranean Remittant or Gastric Remittant Fever." At that time the disease was prevalent in endemic form, particularly in Malta and along the Mediterranean coast. In 1886 and 1887 David Bruce demonstrated the organism responsible for the infection which he named "Micrococcus Melitensis." Wright and Semple in 1897 made a great advance by application of the agglutination test as an aid to diagnosis. The same year Bang of Copenhagen discovered the causative organisms of contagious abortion of cattle which he called "Bacillus Abortus."

In 1904 to 1907 a British Commission headed by Bruce investigated the disease on the Island of Malta which had been causing a heavy morbidity among the soldiers, and demonstrated that the ingestion of goat's milk was the common cause in man.

In 1913 the International Congress of Medicine discussed nomenclature and agreed on the term "Undulant Fever."

In 1918 Alice Evans[3] discovered that the Micrococcus melitensis of Bruce and the Bacillus abortus of Bang were indistinguishable morphologically, bio-chemically, culturally, and by ordinary agglutination tests. Further studies indicated similar pathogenicity for both organisms in human subjects.

In 1927 Carpenter[4] recovered organisms indistinguishable from Bacillus abortus from ten persons with undulant fever, and when five pregnant heifers were inoculated with these organisms they promptly aborted. These observations were repeated by many other observers, and accepted.

Reclassification was needed, and Myer and Shaw[5] proposed the group be known by the generic name of Brucella in honor of Bruce, and it was universally approved. Some investigators believed three types existed, that in goats being Brucella melitensis (Bruce), and that in swine being Brucella suis (Taum), and that in contagious abortion of cattle, Brucella abortus (Bang). Characteristic of the organism is a marked pleomorphism, existing in coccoid and bacillary form, as well as intermediary or oval forms. Attempts to divide it into caprine, bovine, and porcine strains by various methods have not been universally successful. At the present time, it is felt by many investigators that the differences noted are due to host adaption, and a single designation as Brucellosis is best.

It has been realized that the recognition of this disease has provided explanation for many conditions formerly thought to be forms of other diseases, and the increasing number of cases being reported in Wisconsin is due to this recognition. Recent investigators in various parts of the country, especially Hardy[6] in Iowa, have indicated that direct contact with infected cattle and hogs is responsible for a great number of cases in man, and that the ingestion of raw milk from infected herds is probably one of the greatest single factors. The larger incidence in rural areas where both these factors are present is noted. This is shown also by Guilford[7] who reported the incidence in 1929 in our state as 52.4% animal contacts and 47.6% deriving the disease from raw milk. He also noted that very few cases are found in urban localities where pasteurization of milk is enforced. It has been shown, too, that the most common portal of entry into the human body is the ingestion of dairy products, or possibly by hand-to-mouth infection. Morales-Otero[8] of Porto Rico has noted that the organism may enter the human through the abraded skin.

CLINICAL ASPECTS

Clinically, the disease is frequently confused with typhoid, malaria, tuberculosis, and influenza, as well as many other diseases such as acute rheumatic fever, acute bacterial endocarditis, bronchitis, cholecystitis, and tularemia. Abdominal pain is estimated to be present in 12% of the cases, especially early in the disease. Children are apparently rather immune to the disease, and young and middle-aged adults are more commonly affected.

The incubation period is variously estimated from five days to three weeks, and seems to average about two weeks.

In the majority of cases the onset is mild, though occasionally abrupt with chills. Usually it is a week or more before the patient

presents himself to the physician and reports a growing weakness, afternoon and evening fever, often feeling better in the morning, and perhaps still continuing with his occupation. Often it is noted that the patient is not as ill-looking as his temperature would indicate. Drenching night sweats, often with the odor of "mouldy hay," are frequently noted, with restlessness, insomnia and chills. Muscular pains, anorexia, headaches, gastric disturbances, and often symptoms of a mild upper respiratory infection are noted. As the disease progresses, an increase in the previous symptoms, especially weakness and anorexia with constipation is the rule. Rheumatic manifestations, such as pain or swelling in the joints, are reported in approximately 50% of the cases. The nervous system is affected variably.

To examination, little is noted, except fever, weakness, and loss of weight, which is responsible for the confusion in the diagnosis. The spleen is palpable in about one-third of the cases, while unusual signs include various respiratory pathology, genito-urinary signs as frequency, burning, pyuria, and orchitis, and occasional skin rashes.

Blood examination by the agglutination method is the most reliable diagnostic evidence when these symptoms or signs are present. Agglutination in a titer of 1:80 or above is generally accepted as positive evidence of the disease. Cases, however, are reported in which the titer is lower and the infection is still present clinically. In other words, the average titer is 1:80 or above, but cases can exist clinically and the organisms recovered when the dilution is as low as 1:10 or even negative. A few cases are noted where the high titer is found and the disease is not clinically present, also. The blood should be submitted as for a Wassermann test, and it must be kept in mind that the test does not usually become positive until the second week of the illness, though it may appear as early as the fifth day. These anti-abortus serum agglutinins may be retained for many months or years after clinical recovery, though the higher titers, when found, would indicate an acute infection.

Since the disease is a bacteremia, a blood culture may be successful, but usually is not. Special methods are advisable for the growth of the organism. Stool and urine cultures are less successful.

Skin tests intradermally are reported positive after seven to eleven days, using 1/10 to 1/20 cc. of filtrate of a 20 day boullion culture. Guinea pig inoculations have been successful allowing six to eight weeks before autopsy of the animal.

The patient's blood itself usually shows a secondary anemia with a leucopenia in the majority of cases. Occasionally a lymphocytosis is noted. Urine usually shows a trace of albumin.

There has been an attempt to divide the disease into *five clinical types:* (1) The *intermittent* which is our most common type, in which the disease is subacute, with fever of intermittent character with a morning temperature of normal or slightly elevated, and the evening temperature reaching about 104°. The average duration of this type is from one to four months. Occasionally more chronic cases are found.

(2) The *ambulatory,* which comprises about 25% of the reported United States cases, with a short mild illness, and often with the patient remaining at work or desiring to do so, though having a fever and weakness. This type is most frequently confused with influenza.

(3) The *undulatory* type is characterized by relapses and is not as prevalent in this country as in the Mediterranean area, estimated at 15% in the United States. Successive relapses decreasing in intensity and duration are evident and a more chronic course is present. Mental and physical deterioration is more marked in this type.

(4) The *malignant* type, estimated at 2%, with a sudden onset and overwhelming symptoms and a fatal termination in a short time, and,

(5) The *sub-clinical* type, which exists in persons who are exposed, but in whom the symptoms are not evident or so mild that they are not noted. Agglutination tests are positive, however.

Prognosis is good in most cases, a mortality rate of one to four per cent being reported. In 1931, 74 deaths were recorded in the United States, while in Wisconsin, in

1928, there was one death, no deaths in 1929, one in 1930, and one in 1931. For 1932, one death, 1933, two, 1934, five, and none reported so far this year[9]. Prolonged convalescence and invalidism make the disease more serious, however.

Prophylaxis is the most important step in the treatment. In Wisconsin there is an earnest effort by the State to eradicate animals which are shown by test to harbor the organism, and there is a growing acceptance of this plan among the dairy industry of the State. Figures released by the Department of Agriculture and Markets[10] indicate a reduction from 14% to less than 2% of Bang's infection among the tested herds of the state. Among the untested herds, however, unofficial figures as high as 40% of Bang's disease are noted. Dairy farmers can usually be shown that such infected animals are poor producers and a liability to the industry, so replacement is in progress. The fact that many animals harbor and excrete enormous numbers of the organisms, but have no symptoms, complicates the problem, however.

Pasteurization of milk and dairy products completely eradicates the possibility of the disease through that source, while contacts with animals offers a greater problem, and education and precautionary measures are necessary.

Treatment of the disease itself has been confined to symptomatic relief mainly, with attempts at alleviation of the prominent symptoms. Careful nursing, with sponging and ice bags for the fever, heat to the affected joints, and a light, nutritious diet offer relief, while specific therapy by means of goat and horse serum, such as produced by Lee Foshay in Cincinnati, and vaccine as recommended by Simpson[2] of Dayton, Ohio, and Angle of Kansas City[11] have been shown to shorten the course of the disease and prevent recurrences. Intravenous therapy with various medications have had their advocates, but are not generally accepted.

CASE REPORTS

I wish to present a series of four cases which have been under my care in general practice.

(1) R. L., age 23, white male, an employee of a local packing plant, was first seen at his home on September 30, 1932, where he was confined to his bed, with a chief complaint of fever and weakness. He gave a history of having felt poorly ten days prior, having had a poor appetite, felt tired and aching, and did not rest well. He was constipated. One week after first noticing symptoms, he had chills and fever, although he continued to work for three more days. He had a severe nosebleed and drenching sweats and his extreme weakness and persisting fever necessitated his calling a physician. Physical examination at that time did not reveal any special sign, except a mild upper respiratory infection and an obviously toxic patient. Spleen was not palpable. He was removed to the hospital where laboratory tests on October 11 revealed a leucocyte count of 7,800, erythrocytes 3,930,000, and a 65% hemoglobin. Color index of .8. Differential count showed 70% polymorphornuclear leucocytes, 12% large mono's, 14% large lymphocytes, and 4% small lymphocytes. Blood Wassermann was negative and chemistry normal. On October 12, the reports from the Laboratory of Hygiene were negative for typhoid and paratyphoid, but were positive for abortus with a cross agglutination to tularemia. Blood culture was negative. On October 15 recheck of the agglutination was positive in a high titer to abortus alone, and remained so on repeated check-up. The leucocyte count dropped lower, and on October 19 showed 3,200 with a red cell count of 3,880,000, and 55% hemoglobin estimation. Differential showed 48% poly's, 24% large lymphocytes, 24% small lymphocytes, and 4 transitional. The counts remained at approximately this level until the patient's clinical condition began to improve, and on December 6 were back to 8,250 white cells, 4,830,000 reds, and a 65% hemoglobin. There was also 54% poly's, 20% small lymphocytes, and 24% large lymphocytes, and 2 transitional.

Clinically, his symptoms were those previously mentioned with his temperature ranging from 100° in the morning to 104° in the afternoon and persisting until about November 6 when it became about normal. With the subsiding of his temperature, his symptoms improved, and he was allowed to sit in a chair. On November 16, after a period of 10 days practically temperature-free, the temperature took a sharp rise with no new symptoms or signs except a mildly tender spleen and liver which were now slightly palpable. It reached a level of 102 to 103 in the afternoon and remained there for seven days when it again dropped to normal, (November 24) and remained. His pulse curve followed the temperature curve, but never exceeded 120, being around 90 most of the time. During the second elevation, however, it exceeded the curve of the first, He was kept in the hospital until December 9, when he was discharged. Clinically the only unusual symptoms were a transient swelling and soreness of his right knee lasting three days and a marked deafness of both ears which had a duration of about two weeks during the height of his fever, and cleared completely when his temperature reached normal. Examination of his ears during the deaf-

ness revealed no obvious pathology, and it was thought to be due to some effect on his auditory nerves. There have been no recurrences or symptoms as far as is known. Treatment was entirely symptomatic.

Summary: A meat worker, who had been so employed for two years, but who admitted using milk from roadside stands occasionally developed a typical case of undulant fever and had one remission with a total duration of approximately two and one-half months. His deafness with the attack was very unusual, and no other such complications could be found in a review of available literature.

(2) E. M., a white male, age 20, employee of a local packing plant where he had been employed for approximately one year, was first seen on April 12, 1934, at which time he complained of generalized aching, weakness and fever. He reported that he perspired much at night and had poor appetite. He had one slight nosebleed. Examination at that time in the office showed a temperature of 102, and a spleen that was three fingerbreadths below his costal margin. Agglutination tests taken immediately showed positive for abortus in a high titer. He was confined to bed at home, but admitted to the hospital on May 4, 1934, due to the need for further nursing care. His chief complaints at that time were fever, perspiration, backache, cold feet, epigastric distress, and weakness.

Laboratory reports revealed a secondary anemia with a leucopenia of 6,800 going to 4,800 in his second hospital week. Differential count showed 42% neutrophiles, 22% small lymphocytes, 20% large lymphocytes, and 13% monocytes. Dr. Pessin, pathologist at the hospital, reported "The neutrophiles show a shift to the left with a toxic phase plus 2. There is a moderate monocytosis. The erythrocytes and thrombocytes show no pathological changes." Blood chemistry was normal and Wassermann negative. Urine showed a trace of albumin.

His temperature curve was typical, reaching around 104° in the afternoon until May 25 when it began declining and continued so except for a rise to 103° on June 16 and 17 after which it rapidly returned to normal and so remained. Pulse observed same curve as in first case. His clinical course showed no unusual signs or symptoms, and he was discharged on July 3, and has remained well since.

Summary: Another meat worker who also admitted on one or more occasions of having used milk from roadside stands, had a typical course of approximately three months' duration including a suggestion of a slight remission. Secondary anemia with leucopenia was noted and his agglutination reports remained positive throughout. Treatment was symptomatic.

(3) E. J., white male, age 39, a tool and die maker employed by a local battery company was first seen at my office on June 15, 1935, at which time he complained of a dizziness and fever of four days' duration. He stated that he had felt weak and "run down" for sometime previously, and especially so for the past three weeks. Headaches, dyspnoea on exertion, slight oedema of his ankles and some stiffnes of his neck were also noted.

Examination revealed a temperature of 100.6° and some upper respiratory infection with tender muscles of the occipital region and otherwise negative. Heart and lungs were normal and urine negative. He was confined to bed and his temperature was found to reach 102° in the afternoon. Severe night sweats were noted. He was taken to the hospital on June 19 where laboratory reports revealed: red cells 4,820,000 with a hemoglobin of 50%, and a white count of 10,000. Differential count revealed 31 segment, 6 stab., 15 small lymphocytes, 42 large lymphocytes, 3 mono., 1 baso., 2 metamyelocytes. Blood culture and blood chemistry were normal and Wassermann negative. Urine revealed a trace of albumin. Agglutination tests were positive for abortus in a high titer.

His temperature returned to normal promptly on his second hospital day, and he was discharged. A further check-up revealed a continued normal temperature but marked weakness and exhaustion. No more severe clinical signs or symptoms were noted, but his disability due to weakness was marked.

Summary: A fairly short period of hyperpyrexia but prolonged convalescence marked this case. The only source that could be traced was that he had been taking raw milk from a local dairy for several years, and, although it was Grade A, the herd was said to have a number of reactors in it which were disposed of promptly thereafter. Treatment was symptomatic.

(4) F. G., age 41, a white male, employed as a livestock buyer at a local packing plant was first seen on July 22, 1935, at my office, complaining of chills and fever, severe headache and some upper respiratory infection. He had continued to work. There was anorexia and epigastric distress. He stated his symptoms began about one week previously. He had drenching night sweats. He also had some stiff neck and dizziness. Examination revealed a temperature of 104°, pulse of 100. and little else. Some rhinitis and mild bronchitis, but no enlargement of the spleen. Agglutination tests were taken immediately and reported back positive for abortus in a high titer.

He was admitted to the hospital the same day and his temperature returned to normal on July 26 and remained there. Chills and perspiration continued until the fever disappeared. No further signs or symptoms were noted, and he was discharged on August 1. Temperature has remained normal since that time, and although moderate weakness was especially present for several weeks, he has returned to work.

His laboratory reports showed secondary anemia with 68% hemoglobin, and low white count (6,050) with 38% total lymphocytes. He had a normal urine.

Summary: This cattle buyer also had a fairly short period of fever, which stayed normal once it became so. He had used cream secured from a roadside supply; tests of the herd producing it proved to be abortion-free. An attempt was made to secure some of the Foshay serum for use in this case, but his temperature subsided so rapidly it was unnecessary to attempt its use. Treatment otherwise was symptomatic.

CONCLUSION

There are, without question, many cases of undulant fever in Wisconsin which occur in forms closely simulating other diseases and so escape diagnosis. A summary of the disease, with four case reports, is presented in the hope that greater attention may be directed toward its recognition.

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Symptoms Following Cholecystectomy*

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THIS report is based on the end results of 201 consecutive cholecystectomies performed over a period of four years—no case being included which was not over a year old. Questionnaires were sent to 289 patients —only 201 of the replies for various reasons were available for use. These cases were all proven pathologically on gross examination by direct visualization and examination, no gallbladder being removed that was not visibly and palpably diseased. If the microscope is depended upon to back up one's surgical judgment, 80% of patients will not be cured as evidenced by Graham's report on gallbladders removed because of clinical symptoms where only 20% showed any relief. The criteria for operation conformed very closely to the original classification of gallbladder disease as made by Babcock in 1914 and still of value today. He divided gallbladder disease into three stages:

1. The stage of catarrhal inflammation previous to stone formation characterized by epigastric distress, belching, bloating, sour eructations with mild attacks of pain and soreness in the right hypochondrium region.

2. The stage of stone formation distinguished by severe attacks of epigastric pain radiating to back and right scapular region requiring morphia for relief and accompanied by marked dyspepsia of a qualitative type.

3. The stage of complications of serious nature e.g., empyema, gangrene and perforation of gallbladder.

The gallbladder has been considered by many as a vestigial structure, an organ, like the appendix, that can be sacrificed with impunity. We have been told that the common duct will dilate as a compensatory factor for the loss of the gallbladder. While it may be true that experimental evidence on animals will show that cholecystectomy is followed by dilatation of the common bile duct according to Mann and Giordano, still in such cases as it has been my experience to operate on the common bile duct following removal of gallbladder, I have not observed any dilatation that has not been caused by

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pathology either in the duct itself or at its termination. It has been my conviction based on observation of my own cases as well as of others that cholecystectomy has not been the panacea that it has been claimed to be. This statement should not be construed to mean any criticism of the operation itself. Cholecystectomy properly performed and within certain definite clinical limitations does all that is claimed for it. On the other hand, it is equally true as it is gradually being realized from the great mass of clinical and experimental evidence at hand, the gallbladder is only a link in the chain and while it is an important link still pathological changes in the liver cells as well as the bile itself may be more a cause of disease than the gallbladder.

Any explanation of persistent symptoms following cholecystectomy must be based upon our present knowledge of the function of the liver, gallbladder and the bile itself. Owing to the experimental work of Mann and others much is known about the function of the liver.

FUNCTION OF LIVER

The oldest known function of the liver cell is that of secreting bile. The bile, itself, consists of bile pigments, bile salts, and cholesterol. The origin of the first has been proven to be from the reticulo-endothelial system of the bile salts from the liver cells. The metabolism of the cholesterol is in doubt and unquestionably in such metabolic changes lies the explanation of the formation of the gall stones and probably the changes in the gallbladder wall that are known as acute and chronic cholecystitis. There is a growing conviction amongst physiologists and surgeons that infection is not the true explanation of the cause of cholecystitis as has been the belief for many years founded on the work of Rosenow and others. It was claimed in earliest years that typhoid bacilli were the main cause; yet gallbladder disease is on the increase (80% of females past 40 suffering with it) and typhoid fever is becoming a rarity. Again, the infectious theory does not explain why two-thirds of gallbladder disease is in women at an age when infections are not common. Further, it is difficult to demonstrate organisms in a gallbladder that exhibits all the signs of acute inflammation. I have often aspirated bile from gallbladders on the operating table in cases in which the gallbladder was thickened and edematous and the cystic duct blocked and have been unable to microscopically demonstrate organisms. In this connection a quotation from Crile's review of 5,182 cases is interesting: "If it were a fact that infections have an affinity for the gallbladder then acute gallbladder infection should be as common as acute tonsillitis or the common cold, for the liver absorbs every kind of toxin and bacteria from the intestine and does not commonly become infected. The gallbladder and ducts have a natural resistance and rarely have an acute infection except in the presence of stones which irritate them.

GALL STONES

"Gall stones are due to repeated interference with the secretion of the liver cells which results in a deficiency of bile salts and fatty acids and therefore produces a poor quality of bile." Rovsing, in a report of 530 cases, claims that infection is not a primary cause of gallbladder disease. That infection can occur is undoubtedly true, but it is felt that it is secondary to and not the primary cause of biliary tract disease. The true explanation of gallbladder disease lies probably in a metabolic explanation concerned with the metabolism of cholesterol. What these changes are there is no experimental proof at present. Aschoff lays down three necessary conditions for formation of stones: 1. Stagnation of bile. 2. Cholesterol changes. 3. Infection. Further, a word as to the function of the gallbladder. Its function is the expulsion of bile with absorptive power of concentrating bile to one-tenth its volume. That such functions are of prime importance can be gathered from symptoms developing or persisting in patients from whom functioning gallbladders have been removed. On the presence of a functioning gallbladder depends the action of bile in digestion because the amount that can enter the duodenum from the liver and common duct is small in comparison. These functions of the gall-

bladder are of enough importance to warrant its preservation. Compensatory changes after removal are claimed to be a gradual dilatation of bile ducts and often a dilatation of the cystic duct after cholecystectomy. Such compensatory changes cannot take over adequately the functions of a gallbladder. Sutton has shown that the bile duct epithelium undergoes changes to assume in part the function of absorption performed by the gallbladder. On the other hand, a non-functioning gallbladder should be removed, the time of its removal depending on the symptoms caused. If we admit that infection is a secondary effect of bile tract pathology and not a primary cause, then the question of urgency is not a pressing one. That many persons go through life with gallbladder disease often with stones and frequently with no symptoms can be attested to by any surgeon. Furthermore, any consideration of symptoms following cholecystectomy is not complete without some brief consideration of the sphincter of Oddi.

Regarding the anatomic and physiologic status of the sphincter of Oddi, Giordano and Mann state there is definite evidence of a sphincteric mechanism at the duodenal end of the common bile duct. That this mechanism represents a true sphincter and is not simply due to variation in tone of the duodenal wall has not been definitely determined, although the former would appear to be true. Certain specimens examined at necropsy suggest the possibility that the sphincteric mechanism can be thrown into spasm by pathological conditions in the G.I. tract and adjacent organs.

QUESTIONNAIRE

I have taken up the question of physiology of the liver and the bile tract in this paper, because it is on this basis alone we can understand persistence of symptoms following cholecystectomy. The questionnaire that was sent to these patients was worded as follows:

1. Have you been completely cured of the condition for which you were operated upon?
2. If not completely cured, have you any pain? (a) If pain, is it as severe as before. (b) Is it in the same place, and, if not in the same place, where is it now?
3. Are you troubled with gas?
4. Are you troubled with belching?
5. Are you troubled with bloating?
6. Have you sour material in your mouth after eating?
7. Do you still have to be careful as to fatty and greasy foods?
8. Is there still soreness around the operative area?

These questions to be answered Yes or No.

We divided our cases into the calcareous and non-calcareous gallbladders, seeking to determine if there was any difference in results. There were 89 calcareous and 112 non-calcareous cases. The youngest was 18 years, the oldest 70 years. Sixty-six per cent were in women.

The gallbladder drainage cases were not included in this group, because experience has shown that from 40% to 50% will have a return of symptoms in one to two years. One would be led to believe from the glowing reports in the literature of the last 20 years that cholecystectomy will cure from 80% to 90% according to Judd and Priestly report. That such is not the case is shown by my own series as well as others in the literature. Gillespie and Goldish reported only 62% completely relieved.

Of the cases with stones 63% were completely cured—37% were not. Of these 37%, three cases had severe pain after operation and 29 had mild pain. Of the cases without stones 62% were entirely relieved—38% were not, 10% of these having as severe pain as before operation—33% mild attacks. The similarity between these two percentages is somewhat impressive because one would naturally suspect that the cases with stones would have shown a higher percentage of relief than those without stones. The three calcareous gallbladder cases that had recurrence of severe pains were reoperated. In one case a stone was found in the common duct; in the other two cases no stones were found but cause was considered to be in a chronic pancreatitis. They have remained well following common duct drainage.

CAUSES OF CONTINUED PAIN

The causes of severe pain following gallbladder removal are:

1. Stones in common duct which were overlooked at time of original operation.

2. Chronic pancreatitis.
3. Spasm of sphincter of Oddi with obstruction of bile.

I might say in passing only 8% of these cases had stones in common duct comparing with Lahey's report of 17% and percentages in literature of from 8% to 12%. No routine exploration of common duct was done, common duct being opened only where indications such as jaundice and palpable stones made it imperative to do so.

Chronic pancreatitis as a cause of attacks of pain following cholecystectomy is not admitted by many surgeons, notably Lahey. Granted that chronic pancreatitis is a frequent complication of gallbladder disease—there is no more adequate explanation of these boring pains to center of back that recur following cholecystectomy. Cases have been explored for stones and nothing found except an enlarged thickened pancreas—although in these cases every effort should be made to rule out stones. It is often an extremely difficult matter to make a diagnosis of stone in the common duct following cholecystectomy performed some time previously, because as I have indicated chronic pancreatitis and spasm of sphincter of Oddi may cause attacks closely simulating attacks of common duct stone. The classical symptoms of chills and fever with jaundice and clay-colored stools may be lacking. I have found it very helpful to aspirate bile with duodenal tube and examine the specimen for pus cells, bacteria and calcium bilirubin crystals. Given these findings with classical history will help materially in deciding the question.

The third cause given as a source of pain following cholecystectomy, namely, spasm of sphincter of Oddi is open to question, because the natural result of removal of the gallbladder or its incompetence as result of disease is an incompetence of the sphincter as proven by the Graham test of cholecystography. Exploration of the common duct following the removal of the gallbladder on several occasions and finding no explanation for the symptoms except a contraction at the duodenal end that was easily dilated with probe and no other explanation e.g., chronic pancreatitis, has convinced me that such a possibility can exist.

Another cause of pain, especially mild pains following cholecystectomy, are those due to the duodenum or stomach falling into the notch from which the gallbladder has been removed and becoming adherent. We reported two cases in the Wisconsin Medical Journal some years ago in which the clinical and x-ray findings pointed to a duodenal ulcer, but on exploration were found to be due to the duodenum becoming adherent to the area from which the gallbladder had been removed. This complication is prevented by suturing an apron of fat to wall off this area.

Of the dyspeptic symptoms persisting after operation in the cases without stones 58% complained of gas; in the calcareous cases 47%. In the non-calcareous cases 37% were troubled with belching, in the calcareous cases 34%. Bloating 37% in the non-calcareous cases, 29% in the calcareous cases. Sour eructations, a notable feature of all gallbladder patients, persisted in 25% of the non-calcareous cases and 21% of the calcareous cases. It is noteworthy that 68% of the non-calcareous group had to exercise care as to fatty foods while only 56% of the calcareous group had to be careful. We were interested in the question of residual tenderness, because we have noted that of all abdominal surgery local tenderness is more pronounced after gallbladder surgery. In the non-calcareous group 44% complained of tenderness and the calcareous group 35%.

While it is beyond the scope and time of this paper to discuss the reasons for the persistence of dyspeptic symptoms, qualitative and otherwise, after operations upon the gallbladder, a few obvious facts present themselves. First, gallbladder cases cannot be promised a complete cure following surgery. Conditions will arise that make surgery imperative and surgery should be performed promptly, but patients should be told that for a certain percentage, certain symptoms will persist and more so if the gallbladder is still a functioning organ as in the non-calcareous case. I think it is becoming generally recognized that too many gallbladders are being removed that too often the x-ray findings and not the clinical history is the guiding influence. The Graham method

of cholecystography has perhaps not been such a boon after all, because it has broadened the field for gallbladder surgery and brought many a case to the operating table that should have been left alone. Results it seems to me were better in the past than they are at present because the severity of symptoms and the failure of medical and dietetic measures were the indications for surgery. This same method of visualization of the gallbladder, that I spoke of a moment ago, can be used to differentiate the surgical from the non-surgical cases. If it shows a functioning gallbladder then a trial of medical and dietetic measures should be used. I think the reason so many gallbladder cases are rushed to the operating room is because of fear of infection.

Infection has not been proven to be a primary cause. It is probably a secondary effect of metabolic changes in the bile itself. I pointed out previously my reasons for this statement. If medical and dietetic measures fail then surgery should be considered, but as a final resort and not as a primary measure. These remarks are not to be construed to apply to the non-functioning gallbladder or the gallbladder with stones—there surgery is the first consideration, because a non-functioning gallbladder has ceased to perform its functions and if stones are present infection will set in secondarily and serious complications result if allowed to persist. Results in this type of case have been better in the older patient undoubtedly because the liver and bile tract has already accommodated itself to the loss.

SUMMARY

The point that I have tried to drive home in this consideration of the symptoms following cholecystectomy and some of the reasons, therefore, is that gallbladder disease is not a simple surgical problem—that many physiological factors are involved some of which are understood and others are not. 2. That the infectious theory of causation of gallbladder disease is still a theory and not a fact with noted adherents to both sides of the question. 3. That many gallbladder patients by attention to diet, exercise, weight reduction and nervous factors can be kept comfortable and in many instances avoid surgical measures. 4. Finally, that the question of surgery of the gallbladder should be approached with a full appreciation of all the factors involved.

In summary:

1. The gallbladder is an important functioning organ.
2. It should not be sacrificed with impunity.
3. Results from 201 cholecystectomy cases are presented, dividing the cases into calcareous and non-calcareous groups.
4. These results show an appreciable percentage not cured.
5. Gallbladder disease should be handled conservatively—surgery being reserved for the non-functioning gallbladder or the gallbladder in which medical measures have been given a trial and failed.

Non-Calcareous Cases

Completely cured	62%
Not completely cured	38%
Troubled with gas	58%
Not troubled with gas	38%
Troubled with belching	37%
Not troubled with belching	57%
Sour material in mouth	25%
No sour material in mouth	71%
Bloating	37%
No bloating	61%
Careful as to fatty and greasy foods	68%
Not careful as to fatty and greasy foods	32%
Still have soreness	44%
No soreness	54%

Calcareous Cases

Completely cured	63%
Not completely cured	37%
Troubled with gas	47%
Not troubled with gas	53%
Troubled with belching	34%
Not troubled with belching	63%
Sour material in mouth	21%
No sour material in mouth	79%
Bloating	29%
No bloating	70%
Careful as to fatty foods	56%
Not careful as to fatty foods	43%
Still have soreness	35%
No soreness	64%

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DISCUSSION

Dr. Gunnar Gundersen (La Crosse): Doctor Tucker's discussion of "Symptoms Following Cholecystectomy" is of particular interest because it calls to our attention in cold figures the fact that removal of the gallbladder is by no means a cure-all for gallbladder disease. Due to some of the glowing reports in recent years of cures in gallbladder disease, ranging up to 90% by removal of the gallbladder and associated with only 1.7% mortality, we have been led to believe that a complete solution of the problem was for all practical purposes at hand. Doctor Tucker's critical analysis of his own cases is therefore of great value in sounding a note of warning that the final chapter has not as yet been written in this very important field.

Of particular interest, in the analysis, is the absence of any appreciable difference in the end results between the calcareous and the non-calcareous groups. In my judgment, it emphasizes the fact that discomfort in biliary disease is not entirely dependend upon stone in the bladder. This question touches upon the Graham dye test as a criterion of gallbladder disease and gallbladder function. This test utilizes the fact that certain halogen compounds concentrate in the gallbladder. We have come to think of a positive test as being truly indicative of gallbladder pathology and consequently rely more upon this test than we do upon the appearance, etc., of the gallbladder at the time of the operation.

Doctor Tucker touches upon the etiology of gall stones. Considerable light has been thrown upon this subject in recent years as a result of the study of cholesterol metabolism. This theory seems to hold forth more promise than the theories which had as their foundation infection and stasis. Still there are many mysteries relating to the questions: (a) Why stones form? (b) Why more common in women than in men? (c) Why "tight lacing has gone out but the gall stone goes on"?

Why does such a large percentage continue to have distress following what would appear to be adequate surgery? The most obvious answer is of course that the disease is not one of the gallbladder alone; that, granted that the disease had its inception in the gallbladder, by the time the offending member has been removed, the pathologic process has already extended to the adjacent bile ducts and liver and one would therefore hardly expect to obtain complete relief of symptoms in all cases. This would seem to argue in favor of earlier surgical intervention and I believe to be a point well taken by its advocates.

Doctor Tucker advances the theory of "Spasm of the Sphincter of Oddi" as producing symptoms following cholecystectomy and states that it is open to question—calling attention to the fact that Mann and Judd have shown that the hepatic and common ducts dilate following the loss of the gallbladder or loss of its function. Whether symptoms result from these conditions or changes, of which the human is aware, result therefrom is extremely difficult to say. It may result in the patient's continuing to have symptoms, relieved for a while and then have recurrences months or years later. Symptoms may possibly be due to changes in the intra or extra hepatic ducts. If it is true that the sphincteric action is lost after removal of the gallbladder or at least that the sphincteric action is upset, it is difficult to understand that any disturbance in the function of the sphincter of Oddi, such as spasm or stricture, can develop and therefore account for pain following cholecystectomy. Is it possible that the cases to which Doctor Tucker refers represent illustrations of true strictures resulting from the inflammatory process and are the exception and not the rule following cholecystectomy?

Why the liver itself should be the cause of persisting symptoms following removal of the gallbladder, even where there is obvious hepatitis, is difficult to say when one considers the ability of the liver to regenerate and hypertrophy, and the ability of a small piece of liver to carry on all necessary hepatic functions. Perhaps the human is different than the dog where three-fourths of the organ may be removed, the remaining one-fourth carry on (and even allow the dog to go through pregnancy) and grow back to its original size in six weeks. Two-thirds of the remaining one-fourth may then be taken and it returns to the same size. The same is true if ducts are destroyed, indicating the fact that the liver and ducts have tremendous power to hypertrophy.

Regional hepatitis occurs when the gallbladder is inflamed. Isn't it possible that some of the bad results in gall-duct surgery are not due to faulty technique or judgment of the operator but due to changes resulting from stricture and obliteration of the ducts. Some strictures are due to trauma—formerly all were thought due to trauma. We are probably wrong about it. The inflammatory process may extend throughout all the ducts and obliterate them (the same as one sees in a small, shriveled-up, fibrotic gallbladder).

Oil Pneumonia*

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OIL pneumonia is the condition resulting from the entrance of oily substances into the alveolar spaces of the lung. Seen microscopically, the alveoli are filled with phagocytes which have engulfed oil droplets. If the lesion is at all extensive gross areas of consolidation are seen. The late result is fibrosis. The recently increasing interest in this condition has prompted a survey of the literature and a report of twelve cases occurring in the autopsy series of this laboratory.

The name chosen to designate the condition is worthly of some remark. It has been called variously lipoid pneumonia, fat pneumonia, pneumoliposis, and even lipoid cell pneumonia. The last name is particularly misleading, as implying a relationship to one of the disorders of lipoid metabolism, such as lipoid histiocytosis. Since the substances causing it are not properly speaking lipoids, but either fats or oils, and since any fatty substance of fluid consistency might properly be called an oil, it is suggested that the name oil pneumonia designates most accurately the reaction caused by fatty substances flowing into the air spaces. This name would include also mineral oil, a frequent cause of such a reaction, and surely neither a lipoid nor a fat.

The actual occurrence of oil pneumonia certainly antedates its recognition by many years. For instance, the announcement by Koch in 1882 of his discovery of the tubercle bacillus apparently induced a large number of workers to investigate the local treatment of tuberculosis. Among these was Sehrwald[1], who in 1886 reported a long series of experiments in which he injected a variety of substances into the trachea by the percutaneous route. Among these was olive oil, but no note of its effect appears beyond the statement that in three days after injection there was no appreciable absorption or elimination.

In 1887 Rosenberg[2] described several cases of tuberculosis in which he had injected menthol in oil intratracheally as a therapeutic measure. The type of oil is not specifically mentioned, and no pathologic findings are given; he used repeated injections, however, of from 1 to 2 c.c. and one can surely conclude that the reaction was present, though not recognized at the time.

Campbell[3], in 1895, employed a similar type of treatment. In his cases he injected large quantities—up to 20 c.c.—of menthol in oil, but reported no pneumonia from this cause.

The matter apparently rested here until 1917, when Waters, Bayne-Jones, and Rowntree[4], seeking an opaque medium to use in pneumography by x-ray, injected 10% iodoform in olive oil intratracheally into rabbits. This resulted in a proliferative pneumonia which killed 25% of the animals.

In 1920 Guieysse-Pelissier[5] reported the results of the instillation into the trachea of olive oil. His paper is short and unaccompanied by illustrations. He concluded, I believe, without sufficient basis, that the oil, if time were allowed, would disappear by phagocytosis and digestion without leaving a trace. His paper is chiefly important as being the first report of a systematic investigation of the subject.

Corper and Freed (1922)[6] injected mineral oil, olive oil, and chaulmoogra oil into the trachea and found that mineral and olive oils caused a proliferative process, whereas the injection of chaulmoogra oil or any of its esters resulted in destruction and hemorrhage, with true acute pneumonia and even gangrene.

The first cases in man were reported by Laughlen[7] in 1925. These were three children who had been treated by instilling liquid petrolatum nasally, and one adult with a partially paralyzed larynx who had received mineral oil by mouth. Laughlen emphasized the fact that oil pneumonia is often accompanied by infection.

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Iglauer[8] reported in 1926 the finding of iodized oil in the lungs by x-ray up to five months after injection.

In the same year Thomas and Jewett[9] reported a case in which a large quantity of cream was aspirated into the lungs from an esophagus dilated by cardiospasm, with ensuing oil pneumonia.

In 1927 Pinkerton[10] started what is perhaps the greatest contribution to date to the knowledge of the pathogenesis of this condition. He reported six cases of different types and durations, and in the following year published the results of extensive and thorough experimental work on the same subject, to be summarized later.

In 1928 Brown[11] observed collections of phagocytes in and about the alveoli after the injection of iodized oil.

Up to that time in the history of oil pneumonia, observations were entirely experimental or pathological in nature, the condition being found as an incidental one at autopsy. The clinical features now became a subject of study, and in 1932, Pierson[12] reported what is apparently the first case in the literature to be diagnosed during life. He observed a peculiar pneumonia in a child of four months who had received mineral oil nasally and cod-liver and mineral oils by mouth. His roentgenologic diagnosis in this case was tuberculosis with a superimposed lobar pneumonia. At autopsy, however, the lungs were the site of typical oil pneumonia. A short time later a second similar case was encountered; this time the diagnosis of oil pneumonia was made and confirmed at autopsy.

Since then only a few cases have been diagnosed during life. Ellinger[13] has reported three, Bodmar and Kallós[14] one, and Goodwin[15] three out of twenty-five cases reported, one of which was Pierson's original case. From an analysis of the history of those found at autopsy, however, fairly clear-cut clinical criteria have been laid down.

CLINICAL FEATURES

The clinical picture, including roentgenologic findings, is based chiefly on the descriptions given by Pierson and Goodwin.

Patients fall into two general classes: First those who receive oil nasally for treatment of a respiratory condition; the work of Quinn and Meyer[16] is important in this connection. They found that lipiodol instilled in a patient's nose during sleep found its way quickly into the bronchial tree. From this one may certainly deduce that bland oily substances introduced into the nasal cavity just before retiring can cause oil pneumonia, especially if used over a long period of time. The second group is composed of those who are given oil by mouth but do not swallow properly. This includes children who are very young and weak, or who resist the giving of oil, and cough and gag during its administration. In adults the impairment of the swallowing mechanism is usually the result of stupor, coma, delirium, or some organic nervous lesion.

This grouping of patients is naturally not intended to include every possible case, but merely to indicate the chief types of patient in whom oil pneumonia may be suspected, or with whom pains should be taken to prevent it.

The actual signs and symptoms are rather vague, but are in general those of pneumonia without fever. The condition usually accompanies some severe condition, so that its symptoms and signs are easily overlooked. The following, however, may be noted:

Percussion: dullness over the area involved, which may be masked by overlying normal or emphysematous lung tissue.

Auscultation: the breath sounds are usually diminished and bronchial in quality, but may be harsh. Fine or medium moist rales are often heard.

There is usually no change of any note in the cardiovascular system, though shortness of breath has been reported by Ellinger. This dyspnoea would probably be limited to cases with an extreme degree of involvement of lung tissue. Cyanosis and clubbing of the fingers has also been described, though the sole cause of this was not necessarily oil pneumonia.

The most important single factor in diagnosis is the roentgenogram. This shows an irregular, fairly definitely demarcated area of

density which tends to be located toward the hilum, from which it spreads. In the lateral view the density is apt to be more marked posteriorly, perhaps on account of the supine position of most of these patients. In Ellinger's cases the density was located at the bases, probably because her patients were ambulatory. The right lung tends to be more heavily infiltrated than the left, probably because the right main bronchus is the wider and leaves the trachea at a less acute angle than does the left. The roentgenologic findings are usually more marked than the clinical signs would lead one to expect. Both Pierson and Goodwin state that one film is not sufficient evidence on which to make a diagnosis, but that a series is necessary, in which one can ascertain that the condition is neither regressing nor progressing with the rapidity ordinarily attributed to infectious or neoplastic diseases.

To summarize, then, the most important features during life are: (1) a history of repeated administrations of some type of oil and (2) serial roentgenograms.

PATHOLOGY

The work of Pinkerton was extremely thorough and inclusive, and little pathologic information has been added since the publication of his experimental work in 1928[17]. His statements as to the pathogenesis and pathology of this entity have not been disputed, although some investigators disagree with certain details of his results.

The degree of reaction apparently depends on two factors: (1) the degree of emulsification which the oil undergoes in the lung, and (2) the proportion of fatty acid present. The more easily emulsified oils appear to be phagocytosed more easily, and hence a greater cellular response to their presence is seen. The higher the fatty acid content of an oil, the more irritating that oil seems to be, and accordingly the more severe the reaction elicited by it.

Specifically, the oils seem to be divide into three general groups: 1. The mild vegetable oils (low fatty acid content); 2. Mineral oil; 3. Oils having a high fatty acid content, including chaulmoogra oil and many animal oils.

The most important members of the first group are poppy-seed oil, the base of lipiodol; sesame oil, the base of iodipin; and olive oil, sometimes used in sprays. According to Pinkerton's work, these oils call out no cellular reaction, the droplets lying free in the otherwise entirely normal alveoli. Brown's results, however, do not agree with this and he found that lipiodol calls out a definite phagocytic reaction. This discrepancy may be accounted for by the difference in experimental animals, since Pinkerton used puppies and rabbits, whereas Brown used cats. Rabinovitch[18] also mentions a case in which oil pneumonia occurred following the use of lipiodol for diagnostic purposes.

Wright[19] has recently described a case in which lipiodol was found roentgenologically in what seemed to be a bronchiectatic cavity a year after injection. At autopsy, however, the cavity was found to have been obliterated by "a lacework of finely reticulated cells with small round nuclei"; this lacework of oil-laden cells he interprets as a "cellular syncytium," the cells of which probably were derived from the supporting tissue of the lung parenchyma.

This case can hardly be quoted as evidence that lipiodol will cause oil pneumonia, since the lipiodol here was in direct contact with mesodermal tissue, the reaction of which might differ materially from that of alveolar epithelium.

In the case of olive oil, there is apparently no strict uniformity of results, since samples of olive oil differ considerably in their fatty acid content and hence in the degree of reaction called out by them.

Mineral oil, supposedly a most inert substance, calls forth an extensive and intense mononuclear reaction; and after its introduction the alveoli are filled with oil-laden phagocytes (Figs. 1 & 2). Some of these give the impression of signet-ring cells resembling fat cells, while others contain many small oil globules. Late in the disease some of the phagocytes are carried to the lymphoid nodules and lymph nodes (Fig. 3); many stay in the lung framework and either disintegrate with the resultant liberation of large droplets of oil in the alveolar walls or coalesce with the formation of foreign body

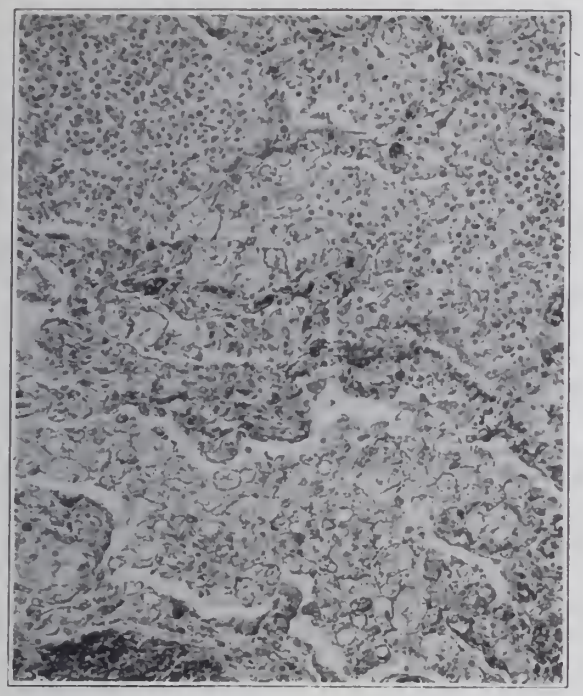

Fig. 1. Oil pneumonia in close conjunction with acute infectious pneumonia. X 160.

giant-cells containing large oil globules (Fig. 4). There is a late thickening and fibrosis of the lung framework, the extent depending of course on the extent of the original lesion.

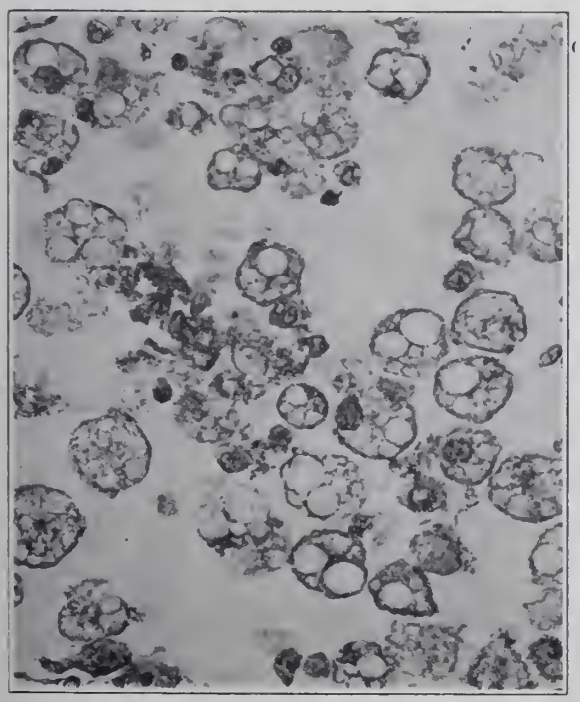

Fig. 2 Phagocytes filled with oil droplets. X 500.

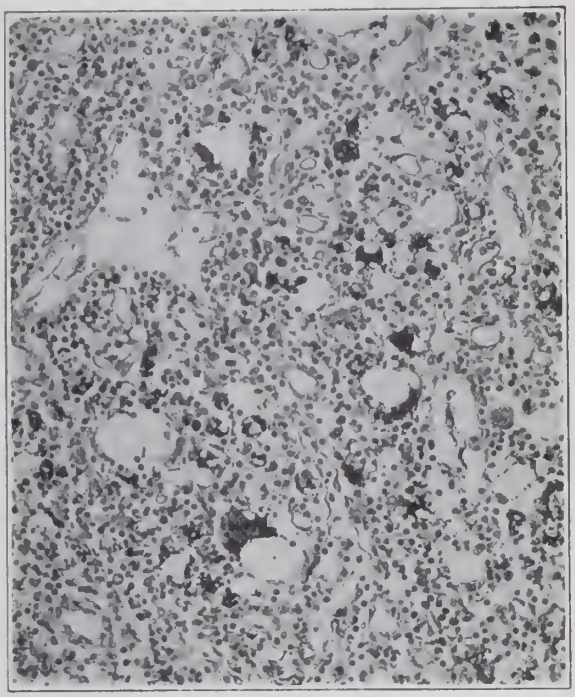

Fig. 3. Bronchial lymph node. Several phagocytes are seen containing coal pigment and oil droplets. X 200.

The third group, especially chaulmoogra oil, as pointed out by Corper and Freed and confirmed by Pinkerton, causes an acute in-

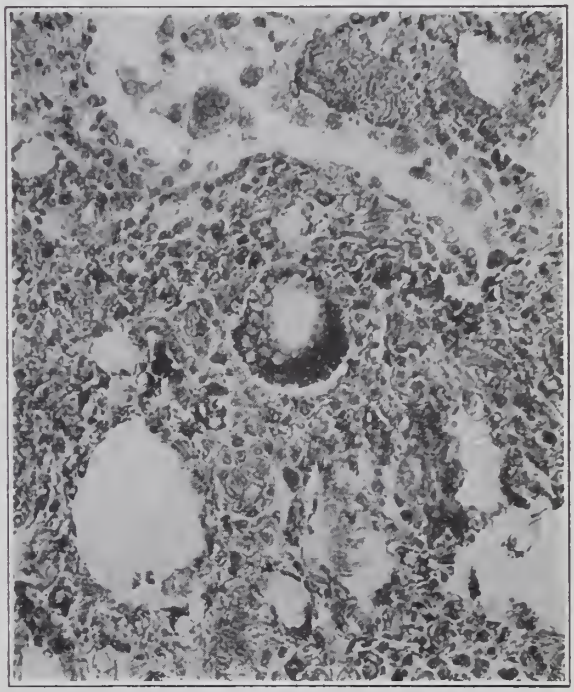

Fig. 4. Late case. Fibrosis of the lung framework. Center, a foreign body giant-cell containing coal pigment and one oil vacuole. X 250.

flammatory reaction with hemorrhage and sometimes gangrene. These substances cause also a peculiar overgrowth of alveolar epithelium which in some parts is actually invasive in nature.

Cod-liver oil seems to give a peculiar reaction in that (1) it is not injurious early, but after several days or weeks its presence calls out an intense giant-cell reaction and results in extensive fibrosis, and (2) after some weeks it becomes insoluble in the usual fat solvents, staining pink with eosin and becoming acid-fast (carbol-fuchsin). The droplets of cod-liver oil in the alveoli take on a "shreddy" character, with processes that resemble pseudopoda.

The first peculiar quality Pinkerton ascribes to gradual hydrolysis in the lung, as cod-liver oil ordinarily has a very low fatty-acid content. The second he lays to oxidation by the alveolar air, since it is well-known that certain fats and oils when oxidized become insoluble in the ordinary fat solvents.

Milk-fat causes a reaction similar to that of cod-liver oil, but to a lesser degree.

The gross appearance of all these reactions is much the same. Early a yellowish irregular consolidation can be seen (Fig. 5). Later scar tissue is formed, and sometimes nodules similar to tubercles are present. In the more severe reactions, as with chaulmoogra oil, there may be a striking resemblance to caseation.

Fig. 5. Gross picture. There is patchy consolidation throughout this portion of the lung, the lighter part being the oil pneumonia.

CASE REPORTS

It has not been deemed necessary to give detailed case reports, since the only outstanding points in these histories relate to the oil, its type of administration, and the reason for its entrance into the lung. These points have been presented in Table I. It will be seen here that the oil, in all cases where its administration appears in the history, was mineral oil. In five cases no history of administration of oil was noted, except that one patient had choked several times on milk, which might have allowed butter-fat to enter the lungs.

One of these five patients was a child of twenty-one months with lipoid nephrosis. No history of oil administration could be elicited either from the family physician or from the family. This fact, of course, brought up a question as to the possible relationship between the lipoid nephrosis and the oily substance found in the alveoli, a relation which seems to me rather far-fetched. The microscopic picture was that of a reaction to mineral oil.

Of the adults, there was definite dysphagia in five and irrationality or varying degrees of stupor or coma in three. One patient, in whose history there was no account of the administration of oil, was conscious and rational throughout his stay in the hospital, without dysphagia.

It is obvious from inspection of the accompanying table that the history does not in all cases appear to correspond to the findings at autopsy, as for example in case 10. Here the hospital history reveals the administration of oil for only eleven days shortly before death, whereas the microscopic picture is that of an old process with scarring and foreign body giant-cells. This circumstance arises usually from the fact that the condition was not recognized until microscopic sections from the autopsy were examined, at which time it was difficult or impossible to ascertain accurately as to the administration of oil before admission to the hospital. In case 11, on the other hand, the family and family physician were questioned carefully after

TABLE I

Case No.	Sex and Age	Type of Oil	How Given	Purpose	Duration	Clinical Findings	Pathologic Findings
1	Male 53 yr.	Mineral	By mouth	Laxative	12 days	Uraemia, with stupor.	Lung framework much thickened and fibrosed. Oil-laden phagocytes in alveoli.
2	Male 40 yr.	Mineral	By mouth	Laxative	7 mos.	Old operation for brain tumor. Irrational and lethargic	Bronchopneumonia; many alveoli filled with oil-laden phagocytes.
3	Male 73 yr.	Mineral	By mouth	Laxative	4 wks.	Spinal Wassermann 4+-tabes. Carcinoma of soft palate with dysphagia and impaired gag reflex.	Acute pneumonia, with many large oil-containing phagocytes.
4	Male 71 yr.	?	?	?	?	Pyelonephritis. Conscious and rational at all times.	Oil pneumonia not extensive. Oil-containing phagocytes in bronchial lymph node.
5	Male 60 yr.	Mineral	By mouth	Laxative	4 mos.	Semicomatose for some days before death.	Thickened lungframework containing oil droplets. Oil-laden phagocytes in alveoli and in bronchial lymph node.
6	Female 46 yr.	?	?	?	?	Lateral sclerosis, probably alcoholic. Dysphagia.	Thickened lungframework with many oil droplets. Extensive oil pneumonia (alveoli).
7	Female 2 yr.	?	?	?	?	Subnormal mentally. Difficulty in feeding.	Oil-laden phagocytes in alveoli and in framework.
8	Male 52 yr.	?	?	?	?	Old head injury; Difficulty in swallowing, old and again recently. Choked on milk twice.	Early picture, mixed with acute pneumonia.
9	Male 51 yr.	Ephedrine in Oil Spray.	Nasally	Nasal obstruction	7 wks. ?	Tumor of neck. Dysphagia.	Early oil pneumonia.
		Mineral	By mouth	Laxative	7 wks.		
10	Female 76 yr.	Mineral	By mouth	Laxative	11 days	History of constipation but none of laxatives. Mentally normal; no nervous lesions.	Late picture with fibrosis and oil-containing giant-cells.
11	Male 21 mo.	?	?	?	?	Lipoid nephrosis. No history of oil administration elicited.	Large droplets in framework, smaller ones in alveolar phagocytes.
12	Female 17 yr.	Mineral	By mouth	Laxative	?	Brain tumor with dysphagia for approximately 8 mos.	Widespread oil pneumonia, recognized grossly. Fairly early picture.

death, but no history of oil administration could be elicited.

In none of these cases was the diagnosis of oil pneumonia made clinically, and in examining their records I can find no definite clinical evidence to point to such a diagnosis. Examination after death of x-ray chest plates from three of them (made for other reasons, of course), also gives no evidence of the condition, even when examined with such a diagnosis in mind. In only one case was the gross diagnosis made at autopsy. This is perhaps due to three factors. First, one is not always alert to the conditions newly recognized as entities; secondly, these were not very extensive lesions, grossly speaking; and lastly, when mixed with an infectious pneumonia, the gross picture of oil pneumonia may be completely masked.

COMMENT

It is impossible in many cases to evaluate accurately the clinical effect of oil pneumonia; it seems obvious, however, that any lesion which reduces the vital capacity will affect the patient unfavorably. This point is especially valid in children, in whom also the progressive contraction of hilar scar tissue may have serious consequences over a period of years.

The frequent presence of infectious pneumonia in close proximity to oil pneumonia indicates that the oil, acting as a foreign body, may produce a locus minoris resistentiae, increasing the susceptibility of the lung tissue to infectious agents.

Lastly, as a natural consequence of these facts, one must conclude that the repeated use, over long periods of time, of oily substances in the nose, and the oral administration of oil to those not able to swallow perfectly is to be carried out with extreme caution, having the possibility of oil pneumonia always in mind.

SUMMARY

Oil pneumonia is a condition resulting from the introduction of oily substances into the alveolar spaces of the lung. The alveoli are crowded with oil-filled phagocytes, and gross areas of consolidation are often formed. Diagnosis during life rests chiefly on a history of administration of oil and on serial roentgenograms of the chest.

A report of twelve cases is presented with a review of the literature.

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Various Operative Procedures in the Treatment of Peptic Ulcer*

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THE term "peptic ulcer" is used in a rather ambiguous fashion to designate an ulcerating lesion of the stomach or duodenum. Ulcers of the duodenum differ markedly from a pathologic and biologic standpoint from benign ulcers of the stomach, and it is necessary that the two conditions should be distinguished sharply, for, although the general principles of treatment are somewhat similar, there are important differences which should be emphasized. As an example, from the pathologic standpoint, duodenal ulcer is never malignant while gastric ulcer may be, or may become, malignant without evidences of malignancy being apparent clinically.

Etiologic factors in the development of both benign gastric and duodenal ulcers are: (1) lower resistance of the tissues, which is the result of infection or abnormal blood supply to the involved portion of stomach or duodenum, which in turn may result from endarteritis or possibly from a peripheral spasm of the end arteries in these regions, and (2) hyperacidity. Without hyperacidity, however, a lowered resistance of tissues may be followed by gastric or duodenal ulceration. It would appear from experimental work of Mann, Bollman, Dragstedt and others that the action of the hydrochloric acid of gastric secretion plays a predominating rôle in the formation of ulcers, and it seems very likely that vagal stimulation plays a considerable rôle in the production of the hyperacidity and lowered resistance of the tissues. I mention these etiologic factors because they concern us in a most important fashion, as an attack on them is the basis of the principles underlying both medical and surgical treatment of gastric and duodenal ulcer. It is interesting to see how closely these principles of treatment are paralleled in both the medical and surgical attack on the lesions. Relief of pylorospasm can be obtained medically by rest and relief from worry and strain, and surgically, by gastro-enterostomy, pyloroplasty or gastric resection. The *emptying time* of the stomach can be increased medically by liquid diet and by assisting the stomach to empty, by means of a stomach tube, while, from a surgical standpoint, properly functioning gastro-enterostomy, pyloroplasty or gastric resection can constantly increase the emptying time of the stomach. Decrease of the gastric acidity is obtained medically by frequent feedings, particularly of liquids, and by administration of alkalies, while surgically, a lessening of the acidity is obtained by the dilution of gastric contents with intestinal secretion, which follows gastro-enterostomy, pyloroplasty, or gastric resection.

SPECIFIC SURGICAL THERAPY

In discussing the specific therapy in the treatment of *gastric ulcer*, it is hardly necessary to emphasize the fact that the situation of the lesion, whether in the stomach or duodenum, should be determined by *fluoroscopic* and roentgenographic examination before any method of treatment is carried out. The reason for this is that, if one elects to treat the patient medically, and if the ulcerating lesion involves the duodenum, the possibility that it may be malignant or may become malignant can be disregarded, while, on the other hand, if the ulcerating lesion is in the stomach, the possibility that it may be malignant or may become malignant must always be kept in mind. I should like to emphasize this point particularly, because gastric ulcers, which have no preoperative evidences of malignancy, frequently are found to be ulcerating carcinomas at the operation. The surgeon too often is asked to operate on patients with extensive malig-

* Read before the 94th Anniversary Meeting of the State Medical Society of Wisconsin at Milwaukee, Wisconsin, September 18 to 20, 1935.

nant lesions of the stomach, which sometimes are unremovable. These patients occasionally give a history of dyspepsia similar to that which is considered as being pathognomonic of duodenal or gastric ulcer. They frequently have been undergoing medical treatment for prolonged periods, and roentgenologic examinations have not been made to determine the situation and character of the lesion before treatment was instituted. A corollary of this is that regardless of how typical the patient's history is of a benign ulcerating lesion of the stomach or duodenum, medical treatment should not be instituted without roentgenologic examination. When the gastric ulcer is small and has been present a comparatively short time, such patients should receive the benefit of a trial at medical treatment and should be in the hospital under observation for three weeks. If, during this time, the niche of the ulcer, as seen in the roentgenogram, has not disappeared, even though the patient's pain has been relieved, and there has been an absence of blood in the stools, the patient should be given the benefit of surgical exploration of the lesion. If the ulcer is of large size with a crater larger than 2 or 2.5 cm. in diameter, the possibility of malignant change is increased. Moreover, such lesions usually are perforative. The perforation occurs into the gastrohepatic omentum or into the pancreas, and, under these circumstances, healing of such a chronic perforating ulcer by means other than surgical treatment is practically impossible. Before leaving this brief reference to the medical treatment of gastric ulcer, it is well to emphasize the fact that even though gastric ulcer disappears as a result of medical treatment and relief of pain and disappearance of blood from the stool have been obtained. a reëxamination, which should include a fluoroscopic examination, should be carried out every three months for the first year thereafter, and every six months for the second year, to be sure that the lesion does not return or has not continued to exist. I have seen, on a few occasions, patients who apparently have had benign gastric ulcers, which responded in an excellent fashion to such a course of medical treatment, who have returned within a few months with a lesion larger than the initial one, and, in some instances, the lesion was proved at operation to be an extensive ulcerating carcinoma.

SURGICAL TREATMENT OF BENIGN GASTRIC ULCERS

The removal of the gastric lesion whenever possible, and it should be possible in practically every case, is a necessary part of the surgical procedure. Excision or cautery puncture, with or without gastro-enterostomy, has given excellent results while the advantage of gastric resection, especially in the treatment of large ulcerating lesions of the stomach, is that it removes a large portion of the stomach and its adjacent lymph nodes, and removes the omenta, which is important, especially if malignant changes are found in the gastric lesion.

The result of these procedures has been stated previously; removal of the lesion combined with gastro-enterostomy, or as a part of partial gastrectomy, increases the rapidity of the emptying time of the stomach and decreases the gastric acidity to a relative achlorhydria in practically all cases. This is true when the gastric ulcer has been excised and gastro-enterostomy performed as well as in cases in which gastric resection has been performed. In this respect, namely the production of a *relative achlorhydria*, the result of such procedures in the treatment of gastric ulcer differs from the results obtained by gastro-enterostomy and by gastric resection in the treatment of duodenal ulcer. This is probably the explanation of the fact that *gastrojejunal ulcer is almost unknown* following the surgical treatment of gastric ulcer. In the treatment of duodenal ulcer, a relative achlorhydria is obtained in only slightly more than 50 per cent of the cases, even following extensive gastric resection.

DUODENAL ULCER

As in the treatment of gastric ulcer, the treatment of duodenal ulcer consists in reducing gastric acidity, increasing the rapidity of the emptying time of the stomach, and relieving pylorospasm. Pa-

tients who have duodenal ulcers without the complications of hemorrhage, perforation or obstruction, and whose symptoms are mild and controllable by dietary regimen are not candidates for surgical treatment. Surgical treatment of duodenal ulcer is indicated in cases in which the dyspepsia has been of long duration and has been uncontrollable by dietary means, and in cases in which the duodenal ulcer is complicated by pyloric obstruction, gastro-intestinal hemorrhage, or evidences of perforation. Specific surgical therapy, like the nonsurgical attack, consists in producing a reduction of gastric acidity by mechanical means, increasing the rapidity of the emptying time of the stomach, and relieving the pylorospasm. These can all be accomplished in different degrees by gastro-enterostomy, pyloroplasty, and gastric resection.

Gastro-enterostomy. The great value of gastro-enterostomy in the surgical treatment of certain duodenal ulcers has not been overemphasized. I have no hesitancy in saying that it is an operation which will cause more duodenal ulcers to heal with a lower operative risk than any other surgical procedure. In contrast to pyloroplasty, it is suitable in all cases, regardless of the size, type, or degree of penetration of the ulcer. It accomplishes all of the necessary things required of the treatment of duodenal ulcer and does so at a minimal risk as the mortality is approximately 1 per cent. That the ulcer may recur in a small percentage of cases (3 per cent) is not to be wondered at any more so than is an equal incidence of postoperative recurrence of such surgical lesions as biliary and urinary calculi, prostatic hypertrophy, and so forth. Should ulceration take place in the anastomosis, removal of the gastro-enterostomy can always be accomplished, at which time the original duodenal ulcer for which the operation was performed will always be found to have healed unless obstruction of the gastro-enterostomy has reactivated the duodenal ulcer. Such being the case, or if the duodenum has been narrowed by the healed scar, a pyloroplasty or a gastric resection can be performed.

Pyloroplasty or gastroduodenostomy. Pyloroplasty or gastroduodenostomy is an operation which consists of the removal of the duodenal ulcer and enlargement of the outlet of the stomach. The operative mortality is approximately 1 per cent. This operation is best confined to those cases in which the duodenal ulcer is small and accessible, and in which there is sufficient mobility of the duodenum to allow not only the removal of the ulcer but the formation of a large outlet. Reduction of gastric acidity will follow the procedure in most cases but not to the same degree as that which follows gastro-enterostomy. The same difference of degree also occurs in the relative emptying time. That there is this difference in reduction of gastric acidity and in the rapidity of emptying time after the two procedures probably is attributable to the fact that operations which involve the pylorus result, because of duodenal peristalsis or "hold up," in a lack of reflux of duodenal fluids which neutralize the gastric acidity.

The low incidence of recurrence of the ulceration is similar to that following gastro-enterostomy. When recurrence does take place, the explanation probably lies in the lowered resistance of the tissues and their particular susceptibility to free hydrochloric acid. This becomes more marked if the anastomosis between the stomach and duodenum has been of insufficient size to permit rapid emptying of the stomach, for, should stasis develop at the gastroduodenal anastomosis with the persistence of undiluted hydrochloric acid, ulceration may recur.

GASTRIC RESECTION

Gastric resection with and without removal of the duodenal ulcer, as in a gastro-enterostomy and pyloroplasty, increases the rapidity of the emptying time of the stomach and lowers gastric acidity. The *risk* of the operation is from *5 to 10* per cent in those cases in which that portion of the duodenum containing the ulcer is removed as a part of the operation of partial gastrectomy. Whether or not it is essential to remove the ulcerating lesion of the duodenum in such cases is a debatable point and is a subject of

(Continued on page 320)

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« « « EDITORIALS » » »

No "Pressure Groups"

FROM time to time, officers of the State Medical Society of Wisconsin receive resolutions from other states. Some of these resolutions call upon officers of the American Medical Association to take certain action and accompanying letters urge each state to adopt a similar resolution.

We feel that the time has come to stop this sort of nonsense. Officers of the American Medical Association are only too anxious to do anything that will advance the progress of scientific medicine and the best interests of a qualified profession. Suggestions from any source, in our experience, are cordially welcomed. Each is given serious consideration and those that seem wise are promptly adopted.

The democratic organization of the American Medical Association makes "pressure groups" entirely unnecessary. It is altogether proper for a State Society to make its suggestion known through the medium of a resolution although a letter frequently will serve the purpose better. But to then assume that every other state society must make a like petition in order to secure action, is to assume that the parent organization is reluctant to act in the interests of the profession, is arbitrary in its position and yields only to pressure. This assumption is a reflection on the intelligence of anyone familiar with medical organization, its efforts and its great record of high accomplishment.

County, state and national society alike welcome any criticism or any suggestion. Each will receive earnest and prompt consideration regardless of the source from which it originates. No "pressure groups" are necessary in medicine.

The Three R's

(Relief, Recovery and Reform)

RELIEF, recovery and reform perhaps originally were used by physicians in treatment of the diseased *human body*, but of late these measures have been appropriated by politicians and applied to disturbances of the *body politic*. There accordingly seems to be justification for drawing comparison between these two dissimilar, and yet similar, bodies.

The human body consists of a combination of microscopic cells usually gathered into groups or systems, each with specific and important duties to perform. Health, even life itself, depends upon normal function of

NINETY-FIFTH ANNIVERSARY MEETING

Memorial Union Building, Madison :-: September 8, 9, 10, 11, 1936

the cells and proper balance between various groups or systems.

In the body politic one finds a combination of individuals gathered, more or less closely, into groups or systems each with specific and important duties to perform with civilization, culture, and progress depending upon proper workings of, and balance between, these groups or systems.

Because of the similarity between the human body and its diseases and the body politic and its disorders; because of the fact that without the services of medicine there would have been little social or other types of progress in this "machine age"; and because the physicians spend their lives in constant observation and study of these three R's as applied to the human body, it would seem that conclusions based upon such observations would justify an opinion that would call for serious consideration in attempts to correct disturbances in the political, economic or social structure of the population as a whole.

RELIEF

In disease, relief may cause confusion and cover up symptoms that might lead to correct conclusions relative to proper treatment. If continued too long a time, it may be harmful in producing habits that are vicious, difficult to break and often cause demoralization and deterioration of character. Experience teaches that the patient should not be a judge as to the proper type, amount, or frequency of relief.

In depression, the necessity of relief is recognized but if continued for too long a time (the changing of a name from "dole" to "public works" does not alter the basic principle) may produce addicts, just as opiates do. It may also confuse the issue and interfere with proper or appropriate means of recovery. Similarly, the *reliefee* should not, even indirectly, be the administrator of the relief.

RECOVERY

Recovery may call for rest and work, and, at times, a judicious combination of the two. Because of the complex mechanism and the multitude of conflicting, modifying or overriding actions and reactions with which one is dealing, recovery first calls for very careful study, and secondly, judicious action.

In sickness the physician is urged to *do something, give something or operate upon something*, while as a matter of fact, generally speaking, excluding emergencies, good health cannot be bought, begged or stolen. It is primarily a matter of cooperation between the patient and the physician, with adjustments and changes in the patient's surroundings, habits and way of living, as necessary prerequisites to recovery.

If is often overlooked that certain diseases are self-limited and that recovery in many disorders may be spontaneous and may occur without, or in spite of, so-called "treatment." Treatment of symptoms may, in fact, delay recovery from the disease. For example, for many years it was considered advisable and good practice to combat fever, high blood pressure or constipation. More recently it has been discovered that under certain circumstances such reactions may be part of Nature's reparative process, and consequently their energetic antagonism at times may be detrimental.

In depression, in response to the clamor to *do something,* recovery has been attempted in many different varieties but to date none has been notably successful. Various schemes have been based upon someone's idea as to the cause of the disturbance. The cause is probably multiple, indefinite and more or less argumentative, but there is substantial reason to believe that effect follows cause and that there are elemental or fundamental laws, interference with which is followed by disturbances in what we are prone to call "normal" conditions.

It is often useless, if not positively harmful, to attempt to treat or correct certain disorders without an understanding of the underlying principles. Attempting to treat disease, for example, without knowledge of the fundamentals of physiology is many times fatal.

Efforts to correct social disorders or injustice (without knowledge of the fundamentals of sociology) may do more harm than good. Trials at adjusting labor and capital disputes (without knowledge of the fundamentals of economics) may lead to disappointment, failure or delay in proper settlement.

Important fundamental laws, such as that of cause and effect, and supply and demand, operate in time of depression as well as in times of prosperity. Over-production (or lack of demand) calls for certain counteractions in order to avoid economic and social dislocation; just as under-production (or excessive demand) calls for an opposite reaction. Such compensatory measures are often unpleasant to the individual and necessitate self-sacrifice in the shape of enforced rest or the opposite, extra effort.

These axiomatic laws may, of course, be delayed, modified or juggled. Balloons and aeroplanes may appear to defy the pull of gravity; two and two may be made to appear as 22; the result of the solar transit in day and night may be altered by man made "daylight saving" and artificial illumination; the consequence of the march of the seasons may be ameliorated by shelter, with heat in winter and cooling in summer. In the last analysis, however, these and similar fundamentals persist in season and out, must be reckoned with and cannot be ignored. Their effects upon the financial, social, cultural and spiritual life of the community are often unprepared for, and therefore create hardships, which are resented and often promote further confusion and disorder which delays recovery.

REFORM

In sickness, reform comes after relief and recovery. It must be a logical development that may be encouraged by the physician by explaining the desirability of certain changes on the part of the patient, with the object of preventing or avoiding a repetition of the sickness. Desirable as it may be, it can rarely be *enforced.* Reform in disease is primarily a matter to be dealt with by the clergy and only indirectly or secondarily by the physician.

Similarly, in depression, attempts at reform come logically after relief and recovery and despite the generally accepted urgency, can rarely be enforced. Reform concerns morality (which often varies with circumstances and conditions), the "Ten Commandments" and the "Golden Rule." Attempts to legislate reform in the past have not been encouraging and had best be left to the clergy and not to the physician or to the politician. The problem of relief, recovery and reform are associated with changes, some temporary and some permanent, in the political, social and economic life of every individual in each and every group in the community.

An attempt now is being made to "reform" medicine by legislation,—to make of medicine a "social service" to be regulated by the government (that is by politicians) in a manner similar to the regulation of other public services. Certain drastic changes would result. Radical departure from the heretofore usual or accepted modes, procedures and customs of the medical profession would have to be accepted.

In contrast with the past in which the supply did not meet the demand, in the present and immediate future there will be an abundance of physicians which will not only justify, but will necessitate certain reactions on the part of the group. Just what the character of these changes will be, no one knows; but regardless of extenuating circumstances the type of the service must, of course, remain the same. Because of the physician being in a profession and not in a trade, professional ideals and ethical standards, as exemplified by the simple rule of considering the patient first and self last, will continue to protect the public in health matters in the future as they have in the past. F. G. C.

. . . . THE PRESIDENT'S PAGE . . . .

"Negotiations Require—"

A NEWSPAPER article which appeared a few days ago in one of the prominent dailies of the state furnishes material for considerable serious thought. The article, with place and proper names deleted, read in part as follows:

"DOCTOR BILLS HIT BY BOARD

"_____SAYS MEDICAL CHARGES ARE 'DISGRACE'

"_____ _____, Wis.—After a morning devoted to the reading of reports and the disposition of routine business matters, the county supervisors, who are meeting at the courthouse here for their annual spring session, yesterday afternoon discussed and acted upon several important questions concerning relief problems in _____ County.

"Following a report of the finance committee, which contained medical expenses for the poor incurred since he board met last November, Supervisor _____, town of _____ introduced a resolution that no more doctor, drug, hospital or dental bills be paid until after the board has passed on them. The board voted unanimously to accept this resolution. The supervisors also voted to stand by an agreement between a committee whom they appointed last fall to cut down medical expenses and the _____ County medical association, which the association recently abandoned, on the grounds that it would have to be taken up with the state medical board to determine whether or not it was legal.

"Stating that the medical fraternity has been 'playing horse' with the county board and that 'the doctor bills in this county are a disgrace,' Supervisor _____ explained the terms of the agreement between the doctors and the investigating committee. Under the terms of the contract presented by the board committee to the medical society, only patients on direct relief were to be cared for by county funds, and these patients were to have their bills charged to themselves, to be paid whenever they were able to. Then the county was to reimburse the doctors fifty per cent for each of the relief cases thus handled. It was thought that in this manner the number of persons on relief to apply for medical aid would be decreased.

"Only physicians who signed this agreement were to be given work by the county. About seven members of the medical society signed this contract. Last week, however, the county was notified that the agreement had been 'scrapped' by the society, the board was told."

With the merits of this controversy, I am not here concerned, because I know nothing whatever about it; all the information I have is derived from the above excerpt. As a member of the State Medical Society, I know that this county medical organization is only endeavoring to protect its members, and is following the proper course in present ng any proposed contract to the State Society in order that its legality may be determined; as a practicing physician, and from experience, I also know that the members of this county society, in carrying out their contract, have undoubtedly had more grief, have done harder work, and have sacrificed more than any member of the county board which is endeavoring to put all the blame on the doctors.

The article above quoted presents only one side of the argument, that of the county board; it implies that the doctors have broken faith by abrogating their contract, and finally, by implication, that the doctors are only interested in making as much money as they can. Unfortunately, the public is not able to read between the lines as a physician can, and will accept the statements as made at their face value.

The point I wish earnestly to urge, is that in the present unsettled condition of medical affairs, such publicity is extremely damaging to the private practice of medicine, and every effort should be made to avoid it. As Federal aid is withdrawn, more and more the question of contracts between medical societies and county boards will arise. Negotiations for such contracts require diplomacy and careful handling; we are dealing with laymen who cannot be expected to understand the physician's problems and viewpoint on mere affirmation alone; frequently, much argument and explanation may be necessary, and we should be prepared to furnish them. Last, but by no means least, every effort must be made to prevent a spirit of antagonism between the contracting parties,—something which is often hard to do, but which in most cases can in some way, according to circumstances, be accomplished.

Ralph M. Carter.

Society Proceedings

BROWN-KEWAUNEE-DOOR

The March meeting of the Brown-Kewaunee-Door County Medical Society was devoted to a discussion of the subject of "Goiter." Dr. George V. Lynch of Oshkosh gave an address on the subject which was followed by a general discussion.

MILWAUKEE

The March meeting of the Medical Society of Milwaukee County was held on Friday, the 13th, at the Milwaukee Athletic Club. Speakers were:

Dr. Arnold Jackson, Madison, chairman of the Committee on Goiter of the State Medical Society, who spoke on "The State Program As It Relates to Goiter Prevention."

Dr. Oliver P. Kimball, Cleveland, Ohio, who discussed "Twenty Years of Goiter Prophylaxis."

PORTAGE

A dinner meeting of the Portage County Medical Society was held on March 10th at Hotel Whiting, Stevens Point.

Dr. M. O. Boudry of Fond du Lac was the principal speaker. The subject of his talk was "Goiter."

RACINE

The Racine County Medical Society met at the Elks Club on Thursday evening, February 20th, at eight-fifteen.

Dr. M. J. Reuter, Milwaukee, presented a very interesting and instructive talk on "The Diagnosis and Treatment of Skin Cancer" which was very well illustrated with lantern slides. A very active discussion of the subject was then held.

Dr. Maurice Hardgrove, representing the Milwaukee Serum Center, addressed the members concerning the obtaining of human convalescent serum in Racine County.

A business meeting was then held. A.M.L.

ROCK

Dr. Arnold S. Jackson, Madison, Chairman of the Goiter Committee, gave an address on "Goiter Prevention" before the March meeting of the Rock County Medical Society held in Janesville on March 31st.

SAUK

The Sauk County Medical Society held its regular meeting on February 25th at the Municipal Hospital, Reedsburg.

An address on "Hand and Arm Infections" was given by Dr. J. L. Keeley of Madison and Dr. H. H. Shapiro, also of Madison. The lecture was illustrated with motion pictures.

Mr. J. G. Crownhart, Secretary, spoke on "Medical Relief in Indigent Cases."

Following the meeting, refreshments were served by the hospital management.

SHAWANO

"Goiter Prevention" was the subject of the meeting of the Shawano County Medical Society which was held at the Murdock Hotel, Shawano, on March 4th.

Drs. R. C. Cantwell, Shawano; E. L. Schroeder, Shawano, and F. L. Litzen of Gresham were speakers.

WINNEBAGO

A dinner meeting of the Winnebago County Medical Society was held on February 27th at the Hotel Raulf, Oshkosh.

Dr. Joseph Lettenberger, Milwaukee, spoke on "The Newest Treatment of Pneumonia" and Dr. Max Fox, also of Milwaukee, discussed "Contagious Diseases."

MILWAUKEE ACADEMY OF MEDICINE

A scientific meeting of the Milwaukee Academy of Medicine was held on March 17th.

Dr. William M. Jermain, Milwaukee, spoke on "Rheumatic Fever with Pericarditis and Heart Block."

Dr. Walter L. Palmer, associate professor of medicine, University of Chicago, discussed "Cinchophen and Liver Necrosis—A Survey of the Problem."

MILWAUKEE OTO-OPHTHALMIC

The March meeting of the Milwaukee Oto-Ophthalmic Society was held at the University Club, Tuesday, March 10th. Following dinner at six-thirty o'clock, Dr. Palmer Good of Kenosha gave an address on "Testing the Visual Acuity of the Pre-School Child."

MILWAUKEE PEDIATRIC

Dr. I. Harrison Tumpeer of Chicago was the guest speaker at the February 12th meeting of the Milwaukee Pediatric Society. Dr. Tumbier spoke on "Allergy of Childhood."

UNIVERSITY OF WISCONSIN

Prof. Mark Ingraham of the Department of Mathematics, University of Wisconsin, spoke on "Quantitative Analysis of Medical Data" before a meeting of the Wisconsin General Hospital Staff on Tuesday, March 17th.

THE WOMAN'S AUXILIARY

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Mrs. Robert E. Fitzgerald, 1739 69th St., Wauwatosa
Chairman of Nominating Committee—
Mrs. Arthur J. McCarey, 902 S. Madison St., Green Bay

Delegates Selected for Kansas City Meeting May 11-15

SIXTEEN delegates and alternates have been named by the Executive Committee of the State Auxiliary to represent Wisconsin at the national convention to be held in Kansas City, May 11th to 15th, during the meeting of the American Medical Association. The elections by the Executive Committee were preceded by recommendations by the Committee on Nominations of which Mrs. Arthur J. McCarey, Green Bay, is Chairman.

Delegates selected were:

Delegates

Mrs. James C. Hassall, Oconomowoc.
Mrs. Oscar W. Friske, 932 Bluff St., Beloit.
Mrs. J. Gurney Taylor, 845 E. Glen Ave., Milwaukee.
Mrs. George H. Ewell, 2024 Kendall Ave., Madison.
Mrs. Ralph M. Carter, 622 S. Webster Ave., Green Bay.
Mrs. Harold M. Coon, River Pines Sanatorium, Stevens Point.
Mrs. Jacob F. Henken, 1116 College Ave., Racine.
Mrs. William M. Jermain, 4464 N. Maryland, Milwaukee.

Alternates to the national meeting elected by the Executive Committee are as follows:

Alternates

Mrs. Donald Curtin, Kimberly.
Mrs. Emil G. Nadeau, 1045 South Jackson, Green Bay.
Mrs. Harry J. Heeb, 6180 N. Lake Drive, Milwaukee.
Mrs. Russell M. Kurten, 1752 Park Ave., Racine.
Mrs. Ernst S. Schmidt, 607 S. Van Buren St., Green Bay.
Mrs. H. E. Kasten, 915 Milwaukee Road, Beloit.
Mrs. C. O. Schaefer, 3428 Washington Ave., Racine.
Mrs. F. A. Nause, 2432 N. 5th St., Sheboygan.

The Chairman of the nominating committee, Mrs. Arthur J. McCarey, Green Bay, recommended that in the event either a delegate or alternate named is unable to attend the convention at Kansas City, the president of the county auxiliary from which the delegate or alternate is named, be empowered to name some other member of her auxiliary to fill the vacancy. In the event that no member of that respective auxiliary will attend the meeting, the president of the State Auxiliary be allowed to name a member from another county auxiliary.

COUNTY NEWS ITEMS

Dodge County

The Woman's Auxiliary to the Dodge County Medical Society met at the home of Mrs. A. A. Hoyer of Beaver Dam on February 27th. Plans were discussed at the meeting for the raising of funds with which to place "Hygeia" in as many rural schools of the county as possible. It was decided to sponsor the project by means of benefit parties to be held at the homes of the members.

Mrs. C. M. O'Hora of Beaver Dam presided at the meeting, following which a social hour was enjoyed. Mrs. A. J. Hebenstreit of Juneau was a co-hostess. Those attending included Mrs. H. J. Heath of Juneau; Mrs. W. E. Bargholtz of Reeseville, and the Mesdames R. E. Schoen, E. P. Webb, A. W. Hammond, A. M. Rosenheimer and X. Corso of Beaver Dam. Mrs. E. A. Williams of Randolph was a guest.

Milwaukee County

The Woman's Auxiliary to the Medical Society of Milwaukee County held its regular meeting at the

Y. W. C. A. on Friday, March 13th, with one hundred women attending.

New members introduced to the Auxiliary by Mrs. J. H. Sure, Chairman of the Membership Committee, included: Mesdames R. J. Bach, E. A. Brezezinski, John A. Enright, Arno R. Fromm, R. E. Galasinski, N. A. Gendlin, Herman A. Heise, Leon H. Hirsh, Edward B. Jacobson, Raymond Jaekels, Karl Kassowitz, E. L. Martineau, Donald F. Rikkers, C. E. Roach, and M. K. Rosenbaum. This brings the membership up to 375.

Mrs. Henry J. Gramling, Chairman of the Committee on Historical Exhibits, asked that anyone knowing of documents, instruments, or other interesting material relating to the early history of medicine in Wisconsin, notify the committee.

Mrs. Benjamin Lieberman, violinist, accompanied by Miss Gertrude Polokar Strauss, played the "Petite Suite Russiene" by Jacques Pillois. Mrs. Lieberman's numbers were enthusiastically received.

Mrs. Robert E. McDonald, Chairman of the Social Committee, announced the annual dinner dance sponsored by the Auxiliary to be given on April 18th at the Wisconsin Club.

Dr. William S. Middleton, Dean of the Medical School of the University of Wisconsin, gave a most interesting and informative lecture on "Changing Weapons Against Tuberculosis."

Dr. Morris Fishbein, Editor of the Journal of the American Medical Association, will speak at the April meeting on "Cosmetics and Patent Medicines."

Racine County

The staff room of St. Mary's Hospital, Racine, was filled to capacity on the afternooon of March 10th by members of the Auxiliary to the Racine County Medical Society and their friends to hear Dr. Ralph D. Bergen, psychiatrist of the Child Guidance Clinic of Milwaukee, speak on "Behavior Problems of Children." Dr. Bergen was introduced by the Auxiliary's Chairman of Public Relations, Mrs. J. F. Henken, Racine.

Dr. Bergen gave an informal, practical and very interesting talk. An open forum followed, during which Dr. Bergen answered questions.

At a short business session conducted by the President, Mrs. I. F. Thompson, at the close of the program, the Auxiliary decided to make its April meeting a visit to the Orthopedic School in Kenosha.

Waukesha County

The Auxiliary to the Waukesha County Medical Society met on Wednesday, March 4th, at the Avalon Hotel, Waukesha, in a joint meeting with the Waukesha County Medical Society where an interesting talk on "Goiter" was presented by Dr. J. F. Wilkinson of Oconomowoc.

DEBATE PAMPHLETS

Members of the Auxiliary are reminded that they may secure copies of the pamphlets, listed below, for distribution to high school debate students.

- Discussion Outline—Social Medicine—Sickness Insurance.
- Sickness Insurance and the Propagandist Foundations.
- Sickness Insurance Not the Remedy.
- Sickness Insurance and Sickness Costs.
- Sickness Insurance Catechism.
- Radio Debate—Sickness Insurance.
- What About the Future?—Ralph M. Carter, M. D.

These pamphlets may be secured in any desired quantity by addressing your request to the State Society's office—119 East Washington Avenue, Madison, Wisconsin.

News Items and Personals

Courses in First Aid, sponsored jointly by the Medical Society of Milwaukee County and the Milwaukee chapter of the American Red Cross, are being conducted among lay organizations by members of the Milwaukee Society.

The first course was given last fall and the second course which was given to the Sheriff's Department began on February 6th and will continue for ten weeks, with one lecture each week. Drs. William A. Ryan, Norbert J. Wegmann and Bernard P. Churchill are instructors.

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The Board of Directors of the Medical Society of Milwaukee County at its February meeting approved the appointment of the following members to a special committee on examination of applicants for automobile licenses: Dr. W. E. Grove, Chairman, Dr. U. Senn, and Dr. M. Q. Howard. The purpose of the committee is to endeavor to develop ways and means by which examinations of applicants for automobile licenses would be required.

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Two members of the State Society's Committee on Cancer gave lectures during March. Dr. W. E. Ground of Superior spoke before a district meeting of record librarians, sisters and nurses of Head of the Lakes hospitals at St. Mary's hall, Superior. The lecture was illustrated by lantern slides.

Dr. Paul F. Doege of Marshfield addressed the Marshfield Woman's Club on the same subject.

Dr. and Mrs. Gideon Benson of Richland Center are visiting their two sons in Honolulu, Hawaii. One son, Dr. Homer, is serving internship in Queen's Hospital, Honolulu. Another son, Dr. Robert, is a physician in the Kula Sanatorium and Hospital on the island of Maui, near Honolulu.

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Dr. W. H. Washburn, Emeritus Professor of Medicine, Marquette University School of Medicine, was presented with a life membership in the Maternity Hospital and Dispensary Association of Milwaukee as a reward for "his unfailing service and devotion to humanity," by the board of directors of the association.

BIRTHS

A daughter to Dr. and Mrs. R. J. Healy, Milwaukee, on January 29th.

A son to Dr. and Mrs. George J. Gumerman, Milwaukee, on February 6th.

A son to Dr. and Mrs. John P. Fetherston, Milwaukee, on February 8th.

A daughter to Dr. and Mrs. F. H. Kramoris, Milwaukee, on February 29th.

A son to Dr. and Mrs. Joseph King, Milwaukee, on February 29th.

ENGAGEMENTS

Announcement of the engagement of Dr. Elmer C. Kocovsky, Milwaukee, to Miss Frances C. Schopen was made recently.

MARRIAGES

Dr. Francis Henry McGovern, son of Dr. and Mrs. J. J. McGovern, Milwaukee, and Miss Rebecca Cash Lee, daughter of Mr. and Mrs. Warren Stone Lee, also of Milwaukee, at Ivy Depot, Virginia on February 7th.

DEATHS

Dr. Frank S. Meade, Madison, died in a Madison hospital on March first after a brief illness.

Born in Perth Amboy, N. J., in 1883, Dr. Meade was a graduate of the University of Illinois College of Medicine in the year 1908. He served internship in Augustana Hospital, Chicago, and began his practice in partnership with Dr. C. A. Harper of Madison.

Dr. Meade was a member of the Dane County Medical Society, the State Medical Society, and the American Medical Association. He was also a member of the Radiological Society of North America.

He is survived by his widow; one daughter, Nancy; two sons, Francis and William.

Dr. Joseph F. Quinn, Milwaukee, died on February 21st following an illness of six months.

Dr. Quinn was born in the year 1867 and was a graduate of Milwaukee Medical College, Milwaukee, in 1905. Since his graduation he had practiced in Milwaukee.

DRAMA OF HEALTH

Each Tuesday, Wednesday and Thursday the State Medical Society presents its "Drama of Health" over the two state-owned radio stations, WHA, Madison (940) and WLBL, Stevens Point (900). These health messages are broadcast at 9:00 A. M.

The schedule for this month:

April 14. Varicose Veins.
April 15. Rickets.
April 16. Spring in the Air.
April 21. Fire and Cancer.
April 22. Ringworm.
April 23. Grandpa Visits the Museum.
April 28. A Dollar a Bottle.
April 29. Aunty Learns About Milk.
April 30. National Child Health Day.
May 5. Lockjaw.
May 6. I Know Just the Thing for That.
May 7. Little Acorns—Mighty Oaks.

LADIES AND GENTLEMEN
YOUR HEALTH!

DRAMATIZED RADIO HEALTH PROGRAMS
of the
American Medical Association

Each Tuesday at 4:00 P. M. over the N.B.C. Network

April 14. Summer Camps.
April 21. Health and the School.
May 5. Maternal Care.
May 12. Medicine Marching Forward.

Survivors are his widow, a daughter, Mrs. Grace Goetzl; a son, Joseph, Jr., attorney.

Dr. J. H. McNamara, Gillett, died on February 21st of pneumonia after a week's illness.

Dr. McNamara was born in the town of Erin on November 7, 1903. He attended Hartford high school and the Milwaukee State Teachers College. He received his medical training at Marquette University School of Medicine in 1933, interning at Misericordia Hospital, Milwaukee, and St. Elizabeth's Hospital, Appleton. He had been a member of the Appleton Clinic Staff before coming to La Valle where he remained until the first of this year, when he moved to Gillett.

Dr. John S. Booher, Reedsburg, died on July 8th, 1935, following a long illness.

Dr. Booher was born in Richland County, September 6, 1863. When he was five months old his father died, leaving his mother with five small children to brave the hardships of pioneer life. In 1895 he graduated from Keokuk Medical College, Keokuk, Iowa. He established his practice at Ironton where he remained for seventeen years. He specialized in

eye, ear, nose and throat diseases and located in Richland Center for twenty years but was forced to retire because of ill health. He moved to Reedsburg in 1931 and in March, 1932, suffered a stroke of paralysis and was an invalid until his death.

He was a member of the Richland County Medical Society, the State Medical Society, and the American Medical Association.

Survivors are his widow and one son, Dr. John A. Booher of La Valle.

Dr. C. A. H. Fortier, Milwaukee, widely known roentgenologist, died suddenly on March 7th, at his home, 2609 East Menlo Boulevard, Milwaukee, following a cerebral hemorrhage. His practice was limited to the x-ray and deep therapy specialty in which he was associated with his son, Dr. C. A. H. Fortier, Jr. His father, Dr. Camille A. Fortier, was a French Canadian physician and surgeon who received his master's degree in surgery from McGill University of Canada. Born in 1876 at Chippewa Falls, Wisconsin, he obtained his preliminary education at Florence, Wisconsin; University of Ottawa in Canada; and Lake Forest Acadmey. Later, he attended the University of Wisconsin from which he received his bachelor's degree and in 1911 was graduated from Marquette University School of Medicine. Since 1913 he specialized in roentgenology, being one of the pioneers in this field and also one of the first radiologists in this state.

He was a member of the Medical Society of Milwaukee County, Milwaukee Academy of Medicine, the State Medical Society, the American Medical Association, and the Milwaukee Roentgen-Ray Society, of which he was at one time president. He was a charter member of the Radiological Society of North America and served as councilor for the State of Wisconsin as well as consulting radiologist for the Milwaukee railroad and was a member of the Congress of Radiology.

Formerly, he lectured on roentgenology at the Marquette University Medical and Dental Schools. At various times, he was on the staffs of the Johnston Emergency, Milwaukee County, Deaconess, Maternity and General, St. Luke's, and St. Joseph's Hospitals in Milwaukee; and St. Mary's and St. Luke's Hospitals in Racine; and the Memorial Hospital at Burlington as roentgenologist.

He served in the World War at the Naval Base Hospital No. 30 as roentgenologist, and prior to this, early in 1917, he acted as roentgen advisor to Advisory Boards Nos. 1 and 4 of Milwaukee. He held the rank of senior lieutenant during his war service.

He proved a most capable educator when giving his time to teaching and took up his work in the field of roentgenology with thoroughness and determination, and his skill and ability brought him prominently to the front in the line of his specialty.

Dr. Fortier is survived by his wife, Mrs. Sophie Peek Fortier; a daughter, Suzanne, and a son, Dr. C. A. H. Fortier, Jr.

Dr. Milo B. Hewitt, 91, of Hartland, Wisconsin, died on March 8th.

Dr. Hewitt was born in the year 1844 in Conneaut, Ohio, and was a graduate of Bellevue Hospital Medical College, New York City in 1869. He began his practice in 1869 in Pewaukee, Wisconsin. Two years later he came to Milwauke where he remained until thirteen years ago when he retired because of illness and moved to Hartland. From 1895 to 1901 he was a professor of obstetrics at Milwaukee Medical College.

He is survived by two daughters, Mrs. Maude Hathaway and Miss Grace Hewitt, both of Hartland.

SOCIETY RECORDS

New Members

George B. Benson, Richland Center.
A. H. Olson, 1623 W. Greenfield Ave., Milwaukee.
H. L. Baxter, Neenah.
Charles Kinsgbury, Goodman.
C. E. Kampine, Marathon.
F. B. Sazama, 322½ N. Bridge, Chippewa Falls.
G. W. Malin, 1717 Main St., La Crosse.
E. W. Thurston, St. Francis Hospital, La Crosse.
H. J. Meier, Burlington.
J. J. Collins, St. Mary's Hospital, Racine.
M. F. Ries, Brownsville.
D. F. Cole, Ripon.
M. M. Scheid, Rosendale.

Changes in Address

J. D. Fuller, Cadott to Brandon.

CORRESPONDENCE

SPONTANEOUS PNEUMOTHORAX

WISCONSIN ANTI-TUBERCULOSIS ASSOCIATION

1018 N. Jefferson Street, Milwaukee, Wis.
March 11, 1936.

To the Editor of the Wisconsin Medical Journal, Madison, Wisconsin.

Dear Doctor: Within the last few months three physicians have sent into the W.A.T.A. x-rays of apparently well individuals with spontaneous pneumothorax. One patient is a woman in the thirties. The other two are men in the twenties.

Recent medical literature has carried accounts of many cases of spontaneous pneumothorax of idiopathic origin. In the Wisconsin Medical Journal for August, 1933, Dr. H. P. Benn of Stevens Point had an article on "Spontaneous Pneumothorax in the Apparently Well." He called attention to the fact

that there are divergent views about the material cause of spontaneous pneumothorax.

Many are of the opinion that every spontaneous pneumothorax means tuberculosis, even though an active lesion is not demonstrable. Others believe that a spontaneous collapse occurring in an apparently healthy individual is not apt to be tuberculous in origin.

In the American Review of Tuberculosis for March, 1934, Elizabeth A. Leggett, J. Arthur Myers and Ida Levine from the Department of Preventive Medicine and Public Hygiene, University of Minnesota, reported on 31 cases of spontaneous pneumothorax.

Nineteen of these were cases of undetermined etiology. Among these, there were 8 negative and 7 positive intracutaneous reactions, and in 4 no test was recorded. This group included 17 males and 2 females, whose ages ranged from 1 to 33 years. In 2 cases blood and air were present together in the chest cavity. In 1 of these the pneumothorax has been maintained artificially, while in the other the lung has failed to expand completely, although nearly three years have passed since the last aspiration of the chest. In the remaining 17 cases there has been a re-expansion of the collapsed lung, followed by clinical recovery from symptoms. In 1 case a calcified nodule with calcified draining lymph nodes was shown in the re-expanded lung; in the remaining 15 cases no evidence of parenchymal infiltration was seen on x-ray examination.

Their conclusion is that many, but not all, spontaneous pneumothoraces are tuberculous in origin.

We would like to correspond with Wisconsin physicians having cases of spontaneous pneumothorax. We are interested in all cases. Those of undetermined etiology who have remained well for a reasonable length of time and those who have had recurrence of collapse with no definite causative factor should prove most fascinating. Will you publish this request?

Very truly yours,

Florence E. Mac Innis, M. D.,
Medical Department.

Medical Economics

THE STATE DEBATES

Just previous to the holding of the finals in the Wisconsin High School Forensic Association debate, the State Society received a letter from Miss Almere Scott, Secretary of the Association.

"I want to express appreciation of the Association," wrote Miss Scott, "for your splendid cooperation."

CHIROPRACTORS ACTIVE

Chiropractors in Wisconsin are again active in preparing to secure legislative support for their 1937 program.

Word from various points in the state indicates that individual chiropractors are now seeing prospective candidates for the 1937 legislature, to be elected this fall, in an effort to "sell" them on the chiropractic program. It is understood that the legislative plans of this group include (1) exempting chiropractors from the Basic Science Law, (2) granting the right to care for compensation and relief cases, and (3) granting right to the use of the title "Doctor." All of these measures have been defeated in previous sessions, some on many occasions, though the demand to treat relief cases will be a new one in legislative halls.

CHIROPRACTORS IN COUNTY HOSPITAL

In Milwaukee County, the chiropractic organization is making a "drive" on the county board to secure the right to be compensated for attendance upon patients from the relief rolls. Questions of legality have been raised and are now pending before the Corporation Counsel of the County.

It has been pointed out that should the county board grant such privileges to chiropractors, it would of necessity include the right to attend cases in the County Hospital. In Los Angeles, for instance, one whole wing of the large county institution is devoted to the care of patients under osteopaths. Will Milwaukee County have a chiropractic wing to the County Hospital? We think the Board will have none of it but the question is yet to be decided.

VIEWING RELIEF

At the recent meeting of the State Board of Health, where the Social Security Program was discussed, the question was raised by members of the Committee appointed by

the Council of the Society to collaborate with the State Board of Health on this problem, as to provision for adequate relief for maternity cases and the future outlook of relief in Wisconsin. Case history after case history was related to show the inadequacy of the medical relief program as experienced under the Federal Emergency Relief Administration, when serious illness, requiring hospitalization, confronted the recipient of Federal Relief.

The complaints registered portrayed, only too vividly, the thought so frequently expressed by your Society when it expressed its concern for the welfare of relief recipients when the Federal Relief authorities refused aid for all cases requiring hospitalization. The Federal regulations, refusing to care for hospitalized cases, had the effect of placing a "premium" on an inferior type of medical service.

The question was raised as to whether the Board of Health would have jurisdiction over the type of medical service rendered to individuals on relief now that Federal assistance has been removed. The State Board of Health stated that they had no jurisdiction over the medical facilities provided by local municipalities. The members of the State Board of Health expressed their concern, however, over the type of medical service contemplated in some areas wherein local municipalities engaged a "county physician."

BOARD ADOPTS RESOLUTION

It was at once apparent to the State Board of Health that the adoption of such a program could only result in an inferior type of medical service, with the immediate result of increased sickness and deaths.

To convey to the citizens of the State of Wisconsin their deep concern, the State Board of Health adopted the following resolution:

"WHEREAS, With the cessation of federal relief funds it is apparent that some counties are contemplating retrenchment in the field of medical care for the indigent, and

"WHEREAS, Such retrenchment can only result in an immediate increased sickness and death rate, and

"WHEREAS, This will bring about an ultimate resultant heavy institutional cost to the counties and state in the future because of any such inadequate programs, now therefore be it

"*Resolved,* That the State Board of Health of Wisconsin, appreciating the significance of this threat to the public health of our citizens, that the counties, cities, villages, and towns be respectfully urged to maintain an adequate medical relief program which will include, (1) the right of the sick to secure the services of the physician of their choice, (2) the manner of recompense be continued as under the federal relief program, and (3) that a policy of reasonable hospitalization be included when found essential to the welfare of the patient by the family physician."

SUMMARIZATION OF RELIEF LAWS

For the past several years the State Society has compiled a summarization of the poor relief laws in Wisconsin. The State Society has just revised this summarization to include changes in the poor relief statutes made during the last session of the legislature.

The newly revised edition of this pamphlet has been approved by the Attorney General, as have all previous editions. The revised pamphlet will include such changes as those resulting from new provisions for pension and blind aid.

This pamphlet is prepared for the use of physicians and local relief officials as a convenient and authoritative reference to the relief laws of Wisconsin.

This pamphlet will be available for distribution by the time you receive this issue of the Journal. Members may secure any desired number of copies of this pamphlet for themselves or for distribution to local relief officials by writing the office of the State Society.

STATE AID FOR HOSPITALS

From time to time it has been suggested that state aid should be granted to hospitals. The proponents of this assistance have felt that this program would be a panacea for the financial ills that confront hospitals.

Time and experience of others who have attempted such a program have proven that this program is not a "cure-all" for the hospitals' economic problems.

In a recent issue of the Journal of the American Hospital Association a report of the experiences encountered in Pennsylvania was given. The report states in part that such a system:—

1. "Has encouraged over hospitalization in certain centers;

2. "Has given impetus to the establishment of hospitals on the basis of personal ambition rather than on that of community need;

3. "Has encouraged the building of hospitals that are too small to be efficient units; and

4. "Has kept alive hospitals which are neither necessary nor worthy of support."

"APPEALS TO CUPIDITY"

On Thursday evening, March 5th, it was our pleasure to enjoy the discussion on the subject of health security in one of the Town Hall programs presented over the air from New York City. Mr. Davis of the Julius Rosenwald Fund as the first speaker advocated further work in the field of disease prevention, the extension of medicine by taxation in rural areas, for relief, and for the treatment of dangerous and costly diseases and ended with the plea for voluntary sickness insurance plans which, if they developed, might be made compulsory.

Dr. Morris Fishbein, editor of the Journal of the American Medical Association, made a long presentation and careful analysis of the many proposals that have been made. He pointed out how propagandists for sickness insurance were constantly promising physicians increased incomes and branded them as "appeals to cupidity."

It was most interesting to the listener to observe that in the period following the formal presentations that the nature of the questions indicated the sympathy of the audience with the position of medicine.

SIGNIFICANT STATEMENT

In the course of his Town Hall presentation, Mr. Davis of the Rosenwald Fund made a statement that should be most significant to members interested in the future progress of delivery of medical service. After discussing various types of voluntary plans, Mr. Davis stated in effect that in the future development of voluntary plans would be laid the foundation for subsequent laws making such procedure compulsory.

Mr. Davis no doubt had in mind the history in many foreign countries where compulsory sickness insurance laws followed the growth of voluntary plans. It was evident that he expects the same end result to be the effect of voluntary plans in the United States.

Coming from a man who is one of the leading propagandists for sickness insurance in the United States, this statement is a very significant one.

LETTERS OF CONFIRMATION

It is not infrequent that a patient will listen to the carefully outlined advice of his physician and then proceed to follow not one of the instructions given. And it not infrequently happens that this same patient will later bring a counterclaim to his statement on the grounds of malpractice.

When it is of considerable importance to the welfare of the patient that certain advice be followed, it is suggested that the physician confirm his oral advice by a letter outlining the essential points. A copy attached to the case history may prove to be an invaluable reference and protection later.

To illustrate: A mother brings in a boy with an injured arm. A fracture is a possibility and to make certain the physician advises an x-ray. The external injury is dressed but the Mother states that she will speak to her husband about the x-ray. Confirm your advice by a letter. If a fracture is present, if an x-ray is not taken, and if disability later results the parents will be unable to say that you treated the external injury but were negligent in not discovering the fracture.

Advice for subsequent treatments, for consultation, surgery and post-natal care,—all of these and others at times may make letters of confirmation advisable.

Governor Appoints Committee to Study Administration of Relief, Federal Aids and State Institutions; Society Represented

DR. ADOLPH GUNDERSEN, La Crosse, and J. G. Crownhart, Secretary of the State Medical Society, Madison, were among a committee of 23 named by Governor La Follette last month to study the administration of relief, federal aids and the state institutions. Chief Justice M. B. Rosenberry of the Wisconsin Supreme Court will act as Chairman of the Committee which includes, among its membership, Prof. E. E. Witte, Director of President Roosevelt's Cabinet Committee on Economic Security.

At an initial luncheon meeting in the Capitol, Governor La Follette pointed out that a committee of the legislature on like subject matter had failed to function and that his purpose in creating the new committee was (1) to institute any changes found needful without resort to legislation, and (2) to report to the 1937 session of the legislature changes found needful that could only be accomplished through legislation. Pointing to the medical problems involved, the Governor specifically stated that representatives of medicine would be asked to view relief administration and institutional care and the broad subject of prevention, using all the facilities of medical organization within the state.

While specific assignments are to be made later, work is already under way to study the problems of relief from the sickness viewpoint, and to compile records on costs and accomplishments under earlier and present methods. No committee report before early fall is anticipated and reports on needed legislation will doubtless be deferred until the most complete studies have been made.

The Summer Round-Up of Pre-School Children

By EVERT C. HARTMAN, M. D.*
Janesville

THE Summer Round-Up of the pre-school children is the major health project of the National Parent-Teachers Association. This movement had its birth in 1925, and has been growing steadily since that time. It has long been recognized that the public as a whole has failed to appreciate the value of more adequate care of the child in the early years of life. Medical men knew that a large per cent of children were entering the first grade of school handicapped to a certain degree with remediable defects. But it remained for a lay organization (as has so often been the case) to take some action in the matter. This is just one example of the failure of the medical profession to visualize an opportunity to perform a useful function which belongs within its sphere. Is it not possible that this blindness is one of the reasons for the encroachment of socialized medicine?

Here is a work which is worthy of the support of every physician in the country. This is recognized in many places where the project has been carried out efficiently, but there are still many localities where only a lukewarm acquiescence of the family physicians has been gained.

It has been argued that this movement is just another scheme for getting something for nothing from the poor, over-burdened M. D. True, most of the work of the spring examination is gratuitous, but if the campaign is efficiently carried to its ultimate conclusion, that is, a vigorous follow-up by the school nurse and her staff of P. T. A. assistants, and the hearty cooperation of the family physician, there will be an appreciable

* State Chairman, Committee on Summer Round-Up, Wisconsin Congress of Parents and Teachers.

amount of corrective work that should be done, and that need not be gratuitous. For example, nearly 50% of the pre-school children examined need tonsillectomies. Many of them should be fitted with glasses before beginning the great adventure of school life. Flat feet, poor posture, malnutrition, and dental defects are remediable conditions found in such examinations.

Not only is this project of value to the youngsters examined, but the educational value to the parents can not be overestimated. The mother finding the five-year-old with one or more defects, which may date back to earlier years in the child's life, may be aroused to the value of periodic examinations of her other younger children to prevent the development of troubles which she learns may have escaped her notice. Many cases of early rickets are discovered for the first time, to mention just one of the several surprises which may come to the mother at the time of this examination.

There can be no question of the genuine worth of this effort to coming generations of school children, but to secure the results it deserves, it must have the intelligent cooperation of nurse, lay committee, and family physician.

Your Practice and the Law*

By J. G. CROWNHART

Secretary, State Medical Society of Wisconsin, Wisconsin Hospital Association, Madison

IN DISCUSSING the relationship of your practice to the law, the broad subject obviously needs a defining of limitations. I shall not discuss the law from the popular conception of a book in which most sections open with the phrase "It shall be unlawful to ——." Neither am I here concerned with law based upon precedent and dusty tomes to which learned justices are supposed to delve in order to secure the bases for solving present day court questions.

I prefer to discuss with you tonight only that law which indicates and has bearing upon how medicine shall be practiced in relationship with other forms of human endeavor that continued community health progress may be secured.

Just ninety-five years ago, while Wisconsin was still a Territory, farsighted physicians of this area asked for a new law. It was passed by the Territorial Legislature of 1841 and so was created that organization now known as your State Medical Society of Wisconsin. I propose to prove to you that no law since conceived has had so much to do with the advancement of the public health of this state as that creating this single society of physicians in the commonwealth. It has been this Society that has directly and indirectly brought about every notable health achievement in the interests of the citizens in the intervening ninety-five years.

Those pioneer physicians of the 1840's brought vividly to the attention of the Legislature the need for an institution in which adequate care could be provided for the insane. The first state institution was created primarily at the demand of those early physicians, and with their support, later came about legislation for the care of the feeble-minded, the blind and the deaf under a central state agency.

There is now before Congress a measure designed to strengthen our Pure Food and Drugs Act. If you will examine the early records of your State Society you will find that as early as 1848 they petitioned Congress on this subject. Medicine again was the proponent of a law to promote the public welfare.

In 1850 the Society asked the Legislature for a third law,—this time for the registration of marriages, births and deaths. They petitioned for such a law, year after year, until their objective was attained and vital statistics could be compiled to chart the major problems in the effort towards health conservation.

In the same year the regents of the University were petitioned to establish a medical school, to advance the training of physi-

cians who were to serve the public needs. It was upon these repeated communications that the regents, in later years, did establish the beginnings of such a school. A school at Milwaukee was similarly urged.

Another law had to be secured in order to legalize dissections and autopsies from which has come so much of your scientific advance. These procedures are so matter-of-fact today that we forget altogether that a law was necessary in the first instance that they might be performed.

Establishment of standards for the practice of medicine were continuously before the Society, and culminated in the first law governing medical licensure in 1897 mainly through the efforts of your own Dr. McGovern and the Basic Science Law of 1925. And again the Society had secured the adoption of laws to protect the citizenry of the state.

In 1876 there was passed still another law as result of the efforts of organized medicine. Through their efforts alone was established the first State Board of Health of this state. I have not the time this evening to recite the number of times that that Board and your Society have stood together before subsequent sessions of the Legislature to secure the adoption of law after law to protect and advance the public health.

In a comparatively recent issue of your Milwaukee Medical Times you had described to you how the organized profession in your county, and through the State Society, made its great contribution in initiating the anti-tuberculosis movement. Again it was the leaders in the profession, some of whom may be in this audience tonight, that started in motion the wheels to secure laws and education that the then "Captain of Death" might be reduced to the ranks as a private.

Our statutes on the subject of narcotics and their misuse are on the books of our state today because the medical profession placed them there in the first instance. They voluntarily proposed restrictions on themselves that laymen might not secure habit-forming drugs through illicit channels outside the profession of medicine.

Some of you saw the terrible effects when little children, thinking they were drinking water, swallowed common lye preparations made up by the mother for household use and temporarily laid aside while answering the front door bell or telephone. You saw the label on those cans bore no warning and so again you initiated in our own legislature a law to protect children. That legislation, in which I had the privilege to assist, is now known as the Caustic Poison Law. Since its passage this type of disaster is most uncommon.

A year ago, out of this very society, came the proposal for a law to permit county medical societies to enter into any necessary relationship with county authorities to secure a proper type of care for the indigent sick. This law is just beginning to function and again it is a law to promote the public interests.

For several legislative sessions I participated in then current debates to repeal the law to hold in confidence that which the physician had acquired in his profession relationships. You saw with great clarity of vision that should this law be repealed, people afflicted with the great destroyer,—social diseases, would not voluntarily report for treatment in the early stages for fear that knowledge of the disease might become public property. Another law was thus sustained by physicians, not to protect their interest but those of the campaign for disease control.

SUGGESTIONS OF MEMBERS

May I here point out that each of these laws originated in the experience of the active practitioners of medicine. You and your predecessors, the family physicians of this state, saw in your daily practice the need of community action adequately to cope with one major problem after another. These needs were reported to the Society and through concerted action appropriate legislation was adopted. Your contribution to the health, welfare and income of the citizens of this state, entirely aside from your vast charitable contributions, has been larger in its beneficent effect than any now have power to measure. Your past and present record is your pledge for continuance of timely legislation to preserve and promote the public health in the future.

I am keenly conscious that it has been said that medicine has resisted community and state action in the field of health. Such statements can come only from the grossly misinformed or from those who have not taken the trouble to even glance at the record. I have given you but a part of the record in our own state tonight. Yet, surely, it is sufficient evidence to support the irrefutable assertion that almost, without exception, every law looking towards group action for the advancement of health and the alleviation of disease has come directly from the active individual practitioners of medicine of this state.

As a layman I have had thirteen years in which to know richly your accomplishments as individual practitioners and as a great Society. I have an appreciation of your high service in protecting and promoting the public health of our citizens. At the same time I have been brought into rather close contact with the accomplishments of others. Without detracting from that which has been secured by other groups and professions, I must express the most earnest conviction that no group anywhere has so contributed to the welfare of the American people as have its physicians.

Once every two years in our state, and once every four years in the nation, the great political parties go before the people to point with pride to their accomplishments and to view with alarm conditions that are capable of bringing distress to our people. Medicine has been so concerned with making further progress that we have been negligent, I fear, in pointing with pride to your great achievements and in viewing with alarm the actions of those who lack experience and fail in vision.

If we are to preserve that which has been attained, however, we must view with alarm the insidious propaganda of those who seek to secure the repeal of those standards of education erected by the state in its Basic Science law to protect the credulous sick from those who would impose upon them by ignorance, fraud, deceit and quackery.

Let us view with alarm the tremendous increase in injury and death from the automobile,—a cause that claimed over 830 lives in 1935 in or own state, exceeding the death rate from diabetes. Here is a cause of injury more or less serious more or less permanent, to 25,000 of our citizens in the single year,—a number that exceeds in a given year the number of cases of any disease on record unless it be the cold. Let us view with public alarm a driver's license law that does not provide for testing of vision, hearing, color blindness nor reaction time and yet a prominent health statistician of our own state estimates that such effective measures alone would reduce this toll by one-half.

We view with alarm a condition wherein anyone may establish and conduct a public institution which holds itself out as being a hospital. And at the same time let us point with pride to the fact that from your own county has come a recognition of the public dangers of this situation so that your State Society is now making studies looking towards another law,—again to protect the rightful public interest.

I am aware of the fact that throughout this discussion this evening I have repeatedly spoken of the public interest. I have done so intentionally for it has been my observation, as I am certain it has been yours, that the interests of practitioners of medicine and those of the public health are joint and indivisible, now and always. As you have benefited the public by your actions through these many years of your organization, so has risen the public respect and esteem for the profession. In times of depression, your financial reward, in common with others, has been cut and cut again but rarely indeed does the community fail to reward the practitioner who earnestly, devotedly and with progress, serves his people. Ample evidence is already available to show that your former income status is being regained, and will continue to increase as the people regain their means of making a livelihood.

NEW HALL MARK?

During these depression years as a means of promoting their own income there are, I know, those who would have us mark out the American people into real estate subdivisions with flags flying over so-called income groups to indicate what extent of medical service

each group should receive and what they should pay for services A to Y. Some would do this by legislation and others by voluntary insurance plans to insure that which actuaries cannot compute on an insurance basis, —for a given group the incidence, degree and kind of illness they may suffer and the costs thereof. Each such plan, bill and experiment that we have studied,—and our files are full of such careful and comprehensive studies—each of these I say are held forth as being a cure-all because they will be cheap.

Gentlemen, if we are to make cheapness the hall mark of medicine then would we return our people to the dark ages when life itself was cheap for no less than life itself is involved in medical service. As you so well know, the common cold within hours can be pneumonia; the common fracture can result in a disability for life reducing earnings by a half; diabetes can be lived with or improperly treated, a cause of too early death; improper diagnosis can mean a life from cancer or prolonged periods of invalidism from any of many causes. When you abandon present standards for fixed sum payments you enter upon a principle in the operation of which the physician profits most from performing the minimum service; a practice wherein the man who pays hard-earned money for months and years may find the institution that took his payments non-existent when he calls upon it in his time of need.

In the annual meeting of your great State Society in the year of 1850 it was suggested that the central figure of the seal of your Society should be The Good Samaritan. Finally was chosen the phrase equally emblematic of the profession,—medicine is not a business.

Medicine as a business would be more certain in its immediate financial rewards. Medicine if operated as a business would require certain numbers of patients in order that the machine of mass attention might function. Medicine in competition as business, aware of the difficulty of laymen judging poor service from good, would say through competing groups,—"come to us and we will do more for less." Medicine as a business would of course be concerned first with profits and payments in advance.

But medicine as a profession, as it has been and is now, practiced throughout the state of Wisconsin, will have none of this. You recognize that illness is peculiarly individualistic and is capable of no mass diagnostic or mass treatment methods. Almost within the month you have declared that it shall be cause for expulsion should any member use collection methods which involve borrowings at legal but high interest rates. Within the last five months you have publicly reaffirmed the age-old tradition of medicine,—that you will care for all who seek your service and the cost will be within the means of each to meet. And a Harry Hopkins rises to declare that the service of medicine to the unemployed in these depression years "is a grand story of service." Medicine as a profession serves no master but the science and art of medicine and your utmost knowledge of both is brought to bear for the service of all.

Finally you hold that in illness there can be no flags laying out the American people in subdivisions. You hold that the most costly medical service is that which devotes its attention to purchase price. No financial catastrophe is so great as that arising out of needless invalidism or too early death caused by substituting quantity service for quality. Progressive adequacy of medical care for the American people, already far in advance of other nations, has given to our industrial population in 1935 the lowest death rate ever recorded. Continued success lies in never surrendering to those forces which would make a poor business out of a truly great profession.

Thirty-Four Licensed by State Board

THIRTY-FOUR physicians have just been licensed in Wisconsin as result of the January meeting of the State Board of Medical Examiners. Of the total licensed, sixteen were licensed as result of examination and twenty-two by reciprocity with other states. The names of the licentiates follow:

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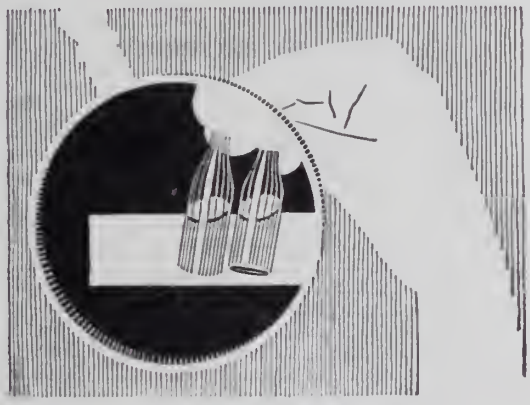

Dependable Ampoules

Solutions to be used in the manufacture of Lilly Ampoules are prepared by dissolving chemicals of the highest degree of purity in water which has been repeatedly distilled. The solution is then assayed and the reaction precisely adjusted, after which the ampoules are filled, sealed, and sterilized. The finished ampoules are again assayed and tests are made to see that the optimum conditions for the administration of the solution remain unchanged. Only those ampoules that are brilliantly clear and have been found to be free from any particle of suspended matter, as examined under a lens with the aid of a powerful beam of light, are approved. In general, this is the record of any ampoule that bears the Lilly Label. Lilly Ampoules are designed, prepared, and tested under the most exacting conditions at all times.

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PRINCIPAL OFFICES AND LABORATORIES, INDIANAPOLIS, INDIANA, U. S. A.

LICENSED BY EXAMINATION

Name	*School of Graduation*	*Year*	*Present Address*
Anderson, Ulysses S.	Minnesota Medical	1931	Ripon
Baldwin, Elizabeth R.	Wisconsin Medical	1935	St. Mary's Hosp., Marshfield
Beutler, Alfred	Friederick-Wilhelm Germany	1920	507 S. 2nd St., Milwaukee
Brady, Charles J.	Wisconsin Medical	1934	Lake Geneva
Goodman, Paul Pyzer	Wisconsin	1934	3412 W. Highland, Milwaukee
Harris, Rob't. H.	Rush	1935	Milwaukee Co. Hosp., Wauwatosa
Helmbrecht, Milan J.	Wisconsin	1934	Columbia Hosp., Milwaukee
Kelly, Joseph F.	Loyola	1935	103 Linn St., Janesville
Leraan, Luther G.	Minnesota	1933	1925 Hughitt Ave., Superior
Metcalf, Cecil John	Rush	1934	Dodgeville
Mohs, Frederic E.	Wisconsin	1934	444 Hawthorne Ct., Madison
Strand, Rob't. C.	Minnesota	1934	230 W. Madison St., Milwaukee
Vedder, Charles A.	Northwestern	1935	St. Luke's Hosp., Chicago, Ill.
Gager, Walter F.	Wisconsin	1935	Milwaukee Hosp., Milwaukee
Lilygren, Stella I.	Wisconsin	1934	Pine Breez San., Chatt'n'ga, Tenn.
Mallow, Harvey G.	Marquette	1935	301 Warren St., Watertown

LICENSED BY RECIPROCITY

Name	*School of Graduation*	*Reciprocity From*	*Present Address*
Allebach, Hobart K. B.	Kansas Medical	Kansas	Milwaukee Hosp., Milwaukee
Bowman, Howard S.	Washington University	Missouri	Beaver Dam
Cleveland, David A.	Northwestern Medical	Ill.	Marquette Med. Sch., Milwaukee
Collins, John Joseph	Iowa Medical	Iowa	1014 Main St., Racine
Daley, David M.	Minnesota	Minn.	Lewiston, Minn.
Granger, Gordon A.	Iowa Medical	Iowa	Alma Center
Gulbrandsen, Lars F.	Illinois Medical	Ill.	Westby
Hatleberg, Earl J.	Rush Medical	Ill.	309 N. Lake St., Madison
Hermes, Marvin J.	Marquette Medical	Calif.	616—6th St., Racine
Hill, Elmer Morris	Minnesota Medical	Minn.	Westby
Hunter, Amy Louise	Yale Medical	Conn.	Bur. Child Wel., State Cap., Madison
Larsen, Reuben L.	Northwestern	U. S. N.	1108 E. Milw. Ave., Janesville
Mason, Elwood W.	Michigan Medical	Mich.	502 Wells Bldg., Milwaukee
Mason, Paul B.	Northwestern Medical	Minn.	103 Lake Court, Sheboygan
Mueller, Roland F.	Washington University	Missouri	Canton, Missouri
Nezworski, Henry T.	Marquette Medical	Mich.	109 Brogan Bldg., Ironwood, Mich.
O'Neill, Hugh Wilson	Pennsylvania Medical	Mass.	303 Main St., Stevens Point
Owen, John Dale	Wisconsin Medical	New York	Knickerbocker Hotel, Milwaukee
Scherling, Sidney Saul	Minnesota Medical	Minn.	Taylors Falls, Minnesota
Taymor, Joseph	Rush Medical	Ill.	Port Edwards, Wis.
Timmons, Peter Joseph	Loyola Medical	Ill.	State Hospital, E. Moline, Ill.
Wilson, Robert B.	Illinois Medical	Ill.	Bloomington

Social Security Funds Now Available For Postgraduate Education; Plans Announced

THE State Board of Health has been advised by the Federal government that funds have been released to Wisconsin through the Bureau of Child Welfare.

When the Social Security Act was passed at the last session of Congress, provision was made in the bill to make recent advances in infant and maternal care available to physicians in active practice. The then President of the State Society, Dr. T. J. O'Leary, and the Secretary appeared before the State Board of Health and recommended that the intent of the Social Security Act could be more effectively discharged if postgraduate education were made available to physicians in active practice through courses similar in nature to the postgraduate courses conducted jointly by the State Society and the Extension Division in 1928, 1929, 1930 and 1931, in the fields of pediatrics, obstetrics, and internal medicine.

The State Board of Health accepted the suggestion of the President and Secretary and recommended to the Federal authorities that allotments be made to make postgraduate education available to the physicians in Wisconsin. This suggestion was approved by Federal authorities and funds have been forwarded to the Board for this purpose. All funds under the Social Security Act will be available from March through June, 1936. While no assurance can be given for the con-

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MEDICINE—Informal Course: Personal Courses; Intensive Course; Two Weeks starting April 13.
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GYNECOLOGY—Three Months Course; Intensive Course Two Weeks; Combined Course Four Weeks Gynecology and Obstetrics starting May 4th
OBSTETRICS—Informal Course; Intensive Course Two Weeks; Combined Course Four Weeks Gynecology and Obstetrics starting May 4th.
FRACTURES AND TRAUMATIC SURGERY—Informal Practical Course; Intensive Course Ten Days starting April 13th.
PEDIATRICS—Informal Course; Two Weeks Course starting May 4th.
EAR, NOSE AND THROAT—Informal Course; Intensive Course Two Weeks; Special Courses.
UROLOGY—General Course Two Months; Intensive Course Two Weeks, Special Courses.
CYSTOSCOPY—Intensive Course every two weeks (Attendance Limited)
General, Intensive and Special Courses in Tuberculosis, Ophthalmology, Roentgenology, Dermatology and Syphilology, Pathology, Neurology, Electrocardiography, Topographical and Surgical Anatomy; Physical Therapy, Gastroenterology, Allergy, Hemorrhoids and Varicose Veins.

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Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245★
N. Y. State Jour. Med. 1935, 35—No. 11,590
Laryngoscope 1935 XLV, 149-154

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SIGNED: _____ M. D.
ADDRESS _____
CITY _____ STATE _____

tinuance of this program beyond June 30, 1936, those who are close to the situation in Washington fully expect that funds will be made available for the next governmental fiscal year from July 1, 1936, to June 30, 1937.

On Friday, March 20, a meeting was called to discuss the details of the methods by which this educational work would be effected. Those present at the meeting included Dr. C. A. Harper, State Health Officer; Dr. Amy Hunter, Bureau of Child Welfare, State Board of Health; Dr. Ralph M. Carter, President of the State Medical Society; Dr. E. B. Pfefferkorn, Assistant State Health Officer; Dr. W. S. Middleton, Dean, University of Wisconsin Medical School; Dr. E. J. Carey, Dean, Marquette Medical School; Miss Cornelia Van Kooy, Bureau Public Health Nursing; J. G. Crownhart, Secretary of the State Medical Society of Wisconsin; and Mr. Chester Allen, University Extension Division.

At the suggestion of the Secretary funds were allotted to defray expenses of speakers appearing before county medical societies to discuss obstetrics and pediatrics. Traveling expenses of these speakers will be paid from Social Security funds when traveling within a radius of one hundred miles from their offices.

Postgraduate courses (obstetrics–pediatrics) were tentatively outlined to cover two circuits of five centers each. The teacher will travel his circuit once each week to deliver his lecture course. This will mean that once each week the physicians who sign up for the course will attend clinical discussions and lectures, devoting one afternoon and evening to this postgraduate education. The funds which are now available will provide for only two circuits, but it is anticipated that when the present budget expires on June 30 further funds will be made available to continue and expand this work so that the entire State will benefit from this educational work.

The instructional staff to conduct the clinics will be selected from the University of Wisconsin Medical School and the Marquette Medical School. The tentative plans call for the initial sessions of the courses to begin on or about May 15, and physicians who desire to enroll in the courses must enroll prior to the inauguration of the course. There will be no charge for the course or for enrollment. The extension division of the University of Wisconsin will enroll the physicians in the courses.

In addition to the funds which have been made available to Wisconsin under the Social Security Act to the Bureau of Child Welfare, other allotments may be made available to the State Board of Health for the further expansion of the present activities of the Board. The State Health officer has submitted to Federal authorities a tentative outline of the expansion of public health work in Wisconsin as made possible under the Social Security Act. The Board in developing this program has cooperated with the United States Public Health Service in order to make it possible for a state to participate. These programs may be subject to change from time to time.

Appointments to positions available under this expansion of the State Board of Health will be made from an eligible list extended to the Board of Health by the Bureau of Personnel after examinations are given by the Bureau of Personnel.

Below appears the tentative outline submitted to the Federal authorities by the State Board of Health. The State Board of Health has *not* been advised that this program has been approved by the Federal authorities in Washington. This tentative program is subject to change and revision.

SOCIAL SECURITY BUDGET—WISCONSIN

I. General Administration

1. Bureau of local health service

Salary Director	$ 4,000	
Travel of Director	1,310	
Salary of Secretary	1,500	
*Statistician	2,100	
		8,910

2. Laboratory

Salary Technician	1,500	
Salary Jr. Technician	1,200	
Travel Technician	680	
*Clerk	960	
		4,340

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

MORPHINE AND OTHER DRUG ADDICTIONS —Selected patients who wish to make good and learn how to keep well; methods easy, regular, humane. 28 years' experience. Dr. Weirick's Sanitarium, 162 South State St., Elgin, Ill.

WANTED—Capable physician would like locum tenens work for a short or long period. Licensed in Wisconsin; References furnished; Will not compete. Address No. 1, in care of the Journal. JFM

FOR SALE—West central Wisconsin long established general practice open to purchaser of office equipment. Lucrative practice assured. Village of 550. No drugs to buy as I prescribe entirely. Good roads and good farming territory. Exceptional appointments transferable. Leaving this section of the state. Address No. 15 in care of The Journal. MAM

WANTED—Young general practitioner for four years wants a new location in town of 1,000 to 4,000 population, or partnership with another man. Address No. 16 in care of the Journal. MAM

WANTED—OALR wanted as assistant or associate to well established OALR. Salary and percentage at start. Partnership later. Send complete information, habits, personality, ability, training, experience, organizations, etc., in first letter. Address No. 9 in care of the Journal. FMA

FOR SALE—One Fischer x-ray generator and control stand; one vertical fluoroscope; one horizontal fluoroscope and table; one movable tube stand and leaded bowl with cone; two Coolidge tubes—one 30 m.a. radiator type, one 30 m.a. universal type; overhead tubing and hangers; overhead switch; two cassettes—14x17 and 8x10 with screens; two 5-gallon hard rubber tanks; film hangers, dark room light, lead-backed film holders, etc. Not new equipment, but all in good working order. First check for $150 takes all. Address No. 11, in care of The Journal. MAM

FOR SALE—Extensive practice in central Wisconsin. Hospital facilities. No competition. Large population. Great variety of experience in general practice and surgery available. Practice established eight years. Reasonable price and terms. Thorough introduction. Practice assured. Address No. 6 in care of the Journal. FMA

WANTED—Position—Well trained, middle aged, married physician with eight years' experience in industrial surgery. Available at once. Go anywhere. Address No. 14 in care of the Journal. M

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WANTED—Young married physician, class A graduate, two years resident physician in large hospital wants location in small city or associated with an older physician. Address No. 12 in care of The Journal. MAM

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Salary Asst. Epidemiologist (Tuberculosis, Goiter, Syphilis)	4,000	
Travel Asst. Epidem.	1,310	
*Clerk	1,200	
		6,510
4. Arsenicals, Tuberculin, etc.		5,000
5. Emergency travel, state health officer and asst. state health officer		1,000
6. Printed educational material		3,828
		29,588

II. Local Health Service (9 Districts instead of present five).

A. Salary of Director	$ 3,300	
B. Salary Sanitary Engineer	2,000	
C. Salary Public Health Nurse	1,600	
D. Salary Office Clerk	1,080	
E. Travel Director	1,200	
F. Travel Sanitary Engineer	1,200	
G. Travel Nurse	1,200	
H. Contingent Fund	800	
	12,380	
The budget of each of the nine districts is $12,380 and for the nine districts it would be nine times that amount, less $21,000 (the amount now spent for district health officers) or a total of		90,420

III. County Health Units (3 only)

A. Salary Director	$ 3,300	
B. Salary Nurse	1,500	
C. Salary Sanitarian	1,500	
D. Salary Office Clerk	1,080	
E. Travel of Director	700	
F. Travel of Nurse	700	
G. Travel of Sanitarian	700	
H. Contingent Fund	800	
	10,280	
or, for three demonstration counties, a total of		30,840

IV. Venereal Disease Nurse (to work in Milwaukee and Milwaukee County with the 3 venereal disease clinics)

A. Salary of Nurse	1,600	
B. Travel of Nurse	380	
		1,980

(The State Board of Health furnished these clinics arsenicals in the amount of $2,419.85 for the year 1935. The physicians in charge are paid by Milwaukee city and county.)

* Clerical help is intended to be for general use rather than confined to any one division.

NOTICE OF AMENDMENTS

In accordance with the Constitution and By-Laws, official notice is hereby given that the following proposed amendments will be voted upon at the September, 1936, meeting of the House of Delegates of the State Medical Society of Wisconsin. Changes are in italics.

1. By the Committee on Resolutions, 1935 House of Delegates:

Amend Article IX of the Constitution to read:

Article IX. Officers. Section 1. The officers of this Society shall be a President, a President-Elect, a Secretary, a Treasurer, *Councilors from thirteen districts*, and a Speaker and Vice-Speaker of the House of Delegates.

Sec. 2. The officers, except the Councilors, shall be elected annually. The terms of Councilors shall be for three years. *There shall be elected one Councilor for each of the thirteen districts except that in any Councilor District embracing a membership of 250 or more, there shall be elected one additional Councilor for each additional 250 members or major fraction thereof.*

As nearly as possible, one-third of the members of the Council shall be elected each year. The Secretary and Treasurer shall be elected by the Council. All these officers shall serve until their successors are elected and installed.

2. By Delegate Bowen of Jefferson County:

Amend Section 2 of Article IX of the Constitution by repealing all of said section 2 and re-creating section 2 to read as follows:

"Sec. 2. The President, President-Elect, Speaker and Vice-Speaker shall be elected by the House of Delegates. The Secretary and Treasurer shall be elected by the Council. Councilors shall be elected at a meeting of their respective district societies. Notices of election shall be incorporated in a mailed notice to the members at least seven days before such meetings.

"Election, where more than one nomination is received, shall be by ballot and a majority of votes cast shall be necessary to elect. Each candidate for councilor must be a resident of the district which it is proposed to represent and no person known to have solicited votes for or sought the office of councilor shall be eligible for the current election. Other

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That food-drink is Cocomalt. Delicious and tempting, easily digested and quickly assimilated—Cocomalt not only adds easily assimilated Iron to the diet, but also richly provides Calcium, Phosphorus and Vitamin D.

An ounce of Cocomalt (which is the amount used to make one cup or glass) supplies 5 milligrams of Iron in easily assimilated form. Thus three cups or glasses of Cocomalt a day supply 15 milligrams—*which is the amount of Iron recognized as the normal daily nutritional requirement.*

Here, then, is one form in which even a capricious child or a finicky adult will take Iron willingly—and at the same time receive other important food essentials. Prepared as directed, Cocomalt adds 70% more food-energy value to a glass of milk.

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procedure essential to the election shall be governed by Robert's Rules of Order.

"The officers, except the councilors, shall be elected annually. The terms of councilors shall be for three years and all officers shall serve until their successors are elected and installed. Terms of councilors shall expire in the following order:

"Third, fourth, fifth and sixth districts in 1937, seventh, eighth, ninth, tenth, and thirteenth districts in 1938, first, second, eleventh and twelfth districts in 1939, and thereafter shall be elected in order."

This amendment offered in 1935 is to be acted upon in 1936 and shall, upon adoption, be effective on January 1, 1937.

3. In event that the Constitution is amended by the amendment offered by the Committee on Resolutions to provide additional Councilors for populous districts, Delegate Bowen of Jefferson County then re-submits his Amendment 2 to provide for the inclusion of such new material in Amendment 1 as follows:

Amend Section 2 of Article IX of the Constitution by repealing all of said Section 2 and re-creating Section 2 to read:

Sec. 2. The President, President-Elect, Speaker and Vice-Speaker shall be elected by the House of Delegates. The Secretary and Treasurer shall be elected by the Council. Councilors shall be elected at a meeting of their respective district societies. There shall be elected one Councilor for each of the thirteen districts except that in any Councilor District embracing a membership of 250 or more, there shall be elected one additional Councilor for each additional 250 members or major fraction thereof. Notices of election shall be incorporated in a mailed notice to the members at least seven days before such meetings.

(The remainder of the amendment to be identical with the word in Delegate Bowen's original amendment printed above under 2.)

4. By the Secretary.

The following amendment to the Constitution is correctional, only for the purpose of supplying an omission.

Amend Section 2 of Article IX of the Constitution by adding the following sentence as the second sentence of the section:

"The President-Elect shall automatically succeed to the office of Presidency at the conclusion of his one year term as President-Elect."

5. By the Council.

Amend Chapter VII of the By-Laws "Committees" as follows:

In section 1. Change the words "A Committee on Scientific Work" to read "A *Council* on Scientific Work."

Repeal all of Sec. 2 and re-create Sec. 2 to read:

Sec. 2. The Council on Scientific Work shall be appointed by the Council of the Society in a manner and for terms to be designated by the Council. The Council on Scientific Work shall study the character and scope of the scientific proceedings of the Society and shall prepare the scientific program for the annual meetings. It shall likewise study the field of postgraduate education making available, so far as lies within its power, program material for such postgraduate education both through programs of component societies and in such other ways as it may find feasible.

(The purpose of this amendment is to provide a committee that is more comprehensive in membership than the present, that will work through longer continuity of its membership, and whose effort will be broader in scope than the formulation of annual meeting programs.)

6. By the Committee on Resolutions, 1935 House of Delegates.

Amend Article VI of the Constitution, "Council" to read:

The Council shall be the Board of Trustees of this Society. The Council shall have full authority and power of the House of Delegates, between annual sessions, unless the House of Delegates shall be called into session as provided in the Constitution and By-Laws. It shall consist of the Councilors. The President, President-Elect, *immediate Past President*, the Secretary, the Treasurer and the Speaker of the House of Delegates shall be ex officio members of the Council, but *with the exception of the immediate Past President shall be* without the right to vote. Nine of its members shall constitute a quorum.

PEPTIC ULCER

(Continued from page 295)

controversy at the present time. Regardless of whether the duodenal ulcer is or is not removed as a part of the partial gastrectomy, the risk of such a procedure is appreciably greater than that of the more conservative operation of gastro-enterostomy and pyloroplasty. Following gastric resection of half to two-thirds of the stomach, no apparent hydrochloric acid will remain in the stomach in approximately 50 per cent of the cases, and in these cases it is very unlikely that an ulcer would recur. On the other hand, free hydrochloric acid will be present in the gastric contents in the other 50 per cent of cases, and, therefore, the patients in these cases would appear to be as susceptible to recurrence as the patients who have been subjected to gastro-enterostomy. Reports in the literature of a large series of cases in which partial gastrectomy has been performed for duodenal ulcer indicate that the incidence of recurrence will vary from 1 to 2 per cent. It

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would appear, therefore, that the decision as to the *preferable* procedure which should be carried out should be made at the *time of the operation* and after the lesion has been exposed. It should be remembered that the preference for any type of operation for duodenal ulcer should rest *primarily on a safe operation.*

SUMMARY

In discussing etiologic and therapeutic factors in peptic ulcer, one should differentiate between the ulcers of the duodenum and those of the stomach, for, although the general principles of treatment are somewhat similar, the lesions differ both biologically and pathologically and in their response to surgical procedures. The fact that a gastric ulcer may seem to be benign by diagnostic and clinical, as well as fluoroscopic, criteria, and yet be found to be malignant at the time of its removal, emphasizes the necessity of removing all ulcerating gastric lesions. Furthermore, the large benign gastric ulcer is usually perforative in character, and in its base are the open ends of blood vessels which may bleed seriously and continue to do so until the lesion is removed.

Medical treatment should not be instituted in the treatment of a clinical syndrome simulating "peptic ulcer" until a roentgenologic examination has been made to determine the situation of the ulcerating lesion, for, if the ulcer is in the stomach, the possibility that it may be an ulcerating carcinoma should be borne distinctly in mind. Medical treatment, therefore, should only be carried out when the patient can be kept under the most careful observation, and when roentgenologic examination of the stomach can be made at quarterly intervals.

The principles of treatment of duodenal ulcer are: first, reduction of gastric acidity, and, second, increasing the rapidity of the emptying time of the stomach. Gastro-enterostomy, pyloroplasty and gastric resection accomplish such purposes, and their choice should be an individual one and should be made at the time the lesion is exposed at operation.

BIBLIOGRAPHY

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The 1935 Year Book of Obstetrics and Gynecology. Edited by Joseph B. DeLee, M. D., and J. P. Greenhill, M. D. The Year Book Publishers, 304 South Dearborn St., Chicago. Price $2.50 postpaid.

Synopsis of Clinical Laboratory Methods. By W. E. Bray, M. D., professor of clinical pathology, University of Virginia. Price $3.75. C. V. Mosby Co., 3523–25 Pine Blvd., St. Louis, Mo.

Examination of the Patient and Symptomatic Diagnosis. By John Watts Murray, M. D. Second edition. Price $10.00. C. V. Mosby Co., 3523–25 Pine Blvd., St. Louis. Mo.

A Text-Book of Surgery. By American authors. Edited by Frederick Christopher, M. D., associate professor of surgery, Northwestern University Medical School. Cloth $10.00 net. W. B. Saunders Company, Philadelphia.

An Index of Differential Diagnosis of Main Symptoms. By various writers. Edited by Herbert French, M. D., consulting physician to Guy's Hospital, London. Fifth edition. Price $16.00. William Wood & Company, Baltimore.

Medical Papers. Dedicated to Henry Asbury Christian, physician and teacher, from his present and past associates and house officers at the Peter Bent Brigham Hospital, Boston, Mass. Waverly Press, Inc., Baltimore, Md.

For and Against Doctors. An anthology compiled by Robert Hutchison and G. M. Wauchope. William Wood and Co., Baltimore, Md. Price $2.00.

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CANNED FOODS AND THE PUBLIC HEALTH

IV. BOTULISM

• Several of our readers have inquired as to the possibility of botulism resulting from the consumption of commercially canned foods. The canning industry is proud of the part it has played in the eradication from its products of this deadly type of food intoxication. We are glad to devote this space to a discussion of this important topic.

During recent years, the daily press periodically carries reports relating how one or more members of a family, or of a group of persons, were stricken after a meal, usually with fatal results. Sometimes these accounts describe how an "anti-toxin" was rushed to the scene—an indication that botulism was involved. These press reports often include the statement that a "canned food" was incriminated as the cause of the illness.

We wish to emphasize that as far as the records go, these outbreaks without exception are not attributed to foods commercially canned in this country. In practically every instance, it was found that the foods —usually of a non-acid or semi-acid nature —had been preserved at home by the use of inadequate heat sterilization processes (1). These press reports, by not stating correctly the type of food involved, have done much to cast unwarranted suspicion on commercially canned foods as possible causes of botulism.

Botulism, or acute toxemia due to clostridium botulinum, is by no means a new affliction. As early as 1802—ninety-five years before van Ermengem discovered the true cause of the intoxication—warnings were issued against botulism. However, not until severe outbreaks occurred in this country some fifteen years ago, was it realized that cognizance should be taken of the fact that foods canned by the methods used in those days could become contaminated with the toxin of this organism. This fact having been realized, the canning industry took immediate steps to prevent such contamination of their products.

Research was inaugurated and has been continued to which the industry has contributed not only financially, but also by the studies of scientists associated directly with the canning industry (2). The end result of these researches was the development of scientific methods of determination of heat sterilization treatments, or heat processes as they are known to the industry, which would be adequate to insure the safety of canned foods from the standpoint of botulism (3).

The effectiveness of the measures generally adopted by the canning industry of the United States is evidenced by the fact that no case of botulism attributable to an American commercially canned food has occurred during the past ten years (1a). Foods packed in commercial canneries are heat processed not only to insure protection from bacterial spoilage causing merely the loss of the food, but to render them safe from the standpoint of botulism, as well. In fact, a sterilizing process sufficient to insure the destruction of the most heat resistant strain of Cl. botulinum ever isolated is considered the minimum requirement of heat treatment of commercially canned foods. The National Canners Association has issued lists of scientifically determined processes for non-acid canned foods with which canners comply (4).

Such are the facts. The American canning industry offers its products to the consuming public for what they are; namely, wholesome and nutritious foods.

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1. a) *1935* Amer. J. Public Health, 25, 301
b) *1935* J. Amer. Diet. Assn. 11, 18

2. *1936* J. Bacteriology 31, No. 1 P. 71
1923 Amer. J. Public Health, 13, 108
1922 J. Inf. Dis. 31, 650

3. *1923* Natl. Res. Council Bulletin, 7, No. 37

4. *1931* N.C. A. Bulletin 26-L, Revised

This is the twelfth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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*Martenstein, H.: Syhilis Treatment: Enquiry in Five Countries, *League of Nations Quart. Bull. Health Organ*, 4: 129, 1935.

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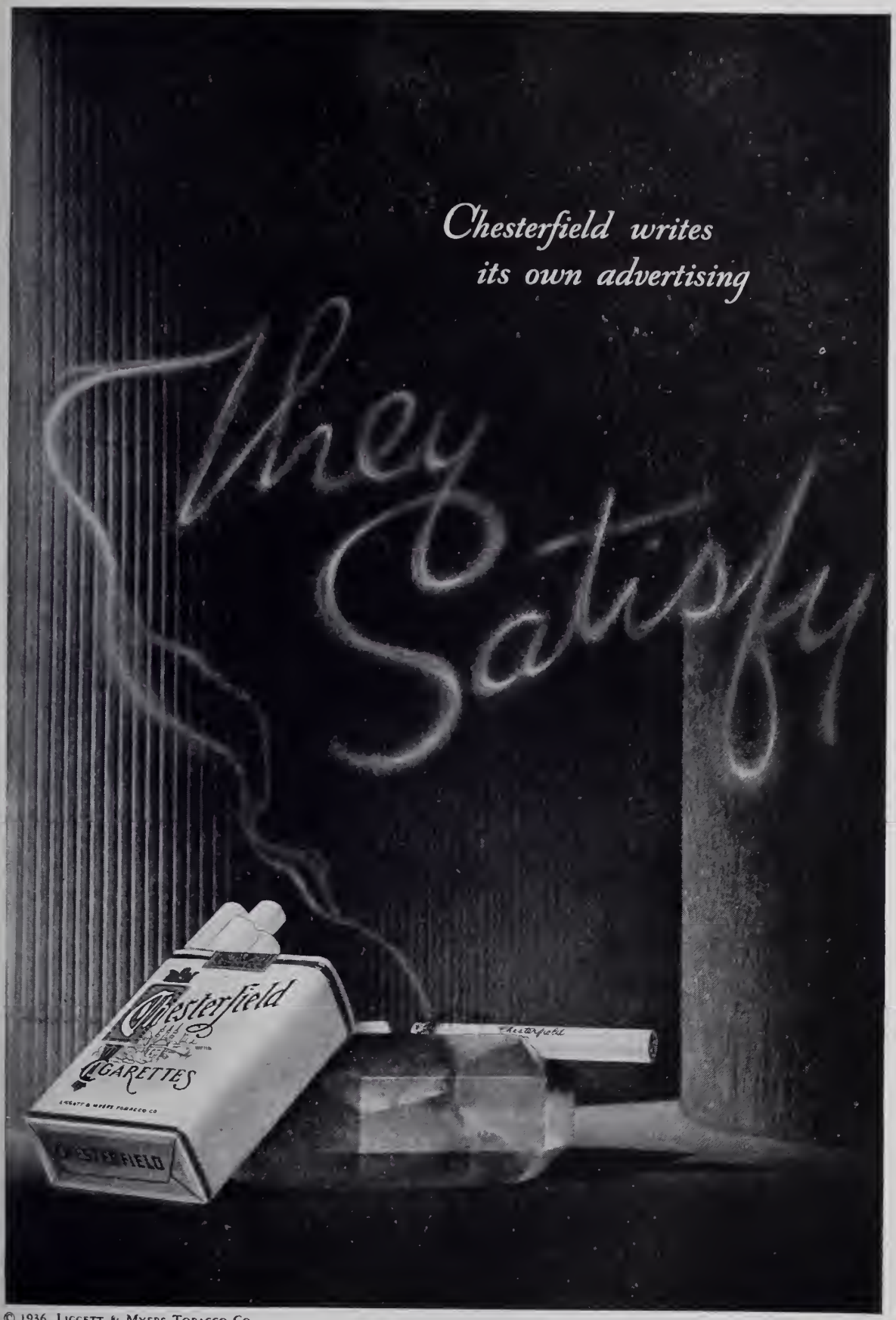

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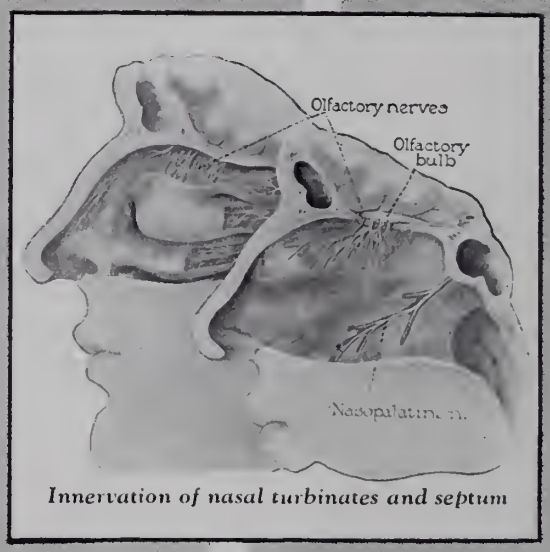

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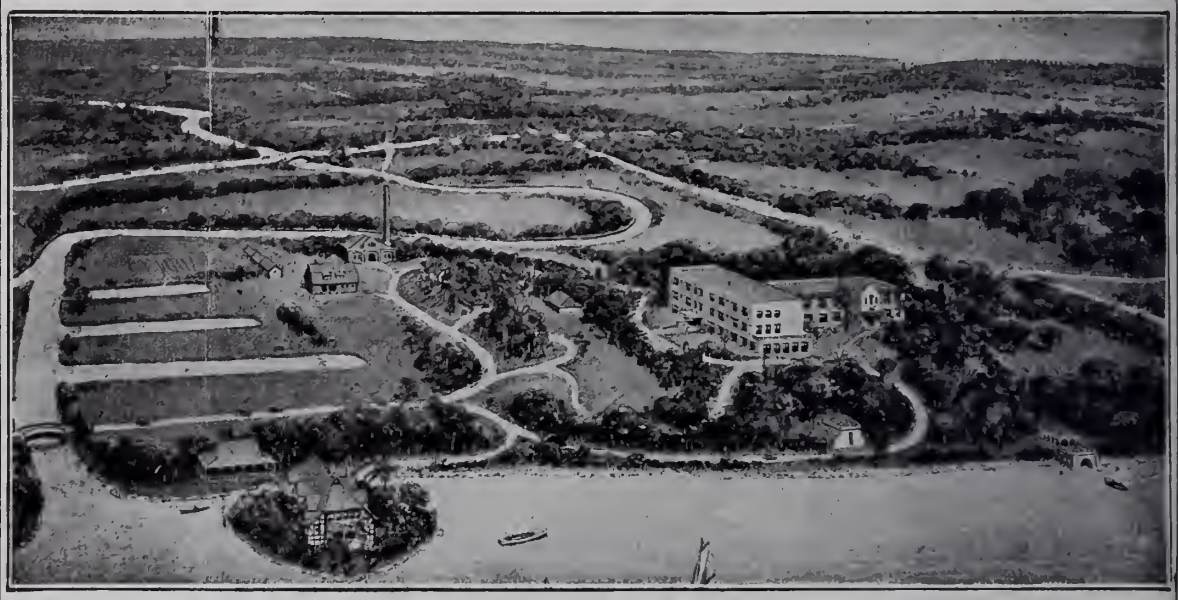

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THE WISCONSIN MEDICAL JOURNAL

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SYMPOSIUM ON SILICOSIS

Silicosis: Some Remarks on the Nature of the Condition in Man*

By NORBERT ENZER, M. D.

Director of Laboratories, Mount Sinai Hospital, Milwaukee

SILICOSIS is an industrial, occupational disease affecting the lungs and caused by finely particulate silica, if present in the atmosphere in sufficient concentration and over a sufficient length of time. The condition will manifest itself in time periods directly proportional to the industrial concentration, which means not only the concentration of the dust but length of exposure.

It has been said that there is a constitutional or individual susceptibility to this condition, something in the nature of a keloid diathesis. This in our experience is not so. Difference in anatomical features may account for variations in the amount of silica reaching the lungs in individuals exposed to the same dust concentrations. What is apparent, however, is that individual and possibly racial susceptibility to tuberculosis is the factor which renders certain individuals more susceptible to the combined process of silicosis and tuberculosis than other individuals. In that regard, the question of the significance of endogenous and exogenous tuberculosis is still being debated. It is our opinion that in the presence of parenchymal uncalcified lesions, no one should work in a silica hazard; that it is unproven that completely calcified pulmonary lesions are dangerous unless unusually extensive; and that individuals with silicosis are susceptible to an exogenous type of tuberculosis. This point is of considerable industrial significance because in the matter of prevention not only is it necessary to eliminate the dust hazard, but also is it necessary to eliminate the carrier of infection. Another type of infection which is extremely important in determining and evaluating individual cases of silicosis is nonspecific infection such as the pneumonias, upper respiratory infections, chronic sinus infections, etc. It is in our experience very likely that a change in the pattern of what we call the silicotic is frequently due to chronic and recurrent infections of a nontuberculous nature.

Because of the necessity of correlating the basic pathology with the clinical symptoms, it is important to remember that clinical surveys should not be made from a prejudiced point of view, since, like others, the silicotic is susceptible to other conditions than pulmonary.

The extremely voluminous literature has attempted to provide investigators and clinicians with a yard-stick for purposes of estimating disability and the degree of the disease. Three conventional classes have been described. Classifications have passed through almost innumerable variations. Most of them have been based upon x-ray manifestations. It is our opinion that we have to deal only with three types: the individual in the pre-nodular phase, the individual in the nodular phase, and the individual with infected silicosis. It is also our opinion at the present time that the last stage is the one of greatest immediate industrial importance. In the very first stage, or the prenodular phase, it has been assumed that there is a

* Presented before 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, Sept. 1935.

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peribronchial and perivascular fibrosis associated with lymph node involvement. My experience has been to the effect that we cannot demonstrate that type of fibrosis nor is there any reason to assume from actual human experiences that massive lymph nodes are characteristic of the pre-nodular phase. On the other hand, anatomical experience has demonstrated to us the frequency of the rather parellel state of the development of the disease in both the lungs and the lymph nodes. It is likely that more experience will demonstrate in uncomplicated silicotics a fairly uniform distribution, and, at any rate, massive involvement of the lymph nodes is to be found generally in the rather late and advanced stages of nodular silicosis.

With respect to this non-nodular phase of the disease there has been injected the notion of interstitial silicosis. This term is most unfortunate since all of silicosis is interstitial. The idea was that there was present in the lung a diffuse ramifying linear fibrosis involving alveolar septa. This has not been found in human material even in very late and complicated stages, and the term interstitial and its concept should very definitely be dropped from the nomenclature of this condition.

Silicosis is primarily a diffuse but nodular condition; something in the tissue dynamics and physics of the disease demands that the end-stages of the process be nodular.

Briefly, the ultimate effect of advanced silicosis on the lung structure is to reduce the volume of functioning lung. As a consequence of this, there is an associated compensatory emphysema.

It has been postulated, and quite logically so, that because of the arrangement of the nodules around the pulmonary arteries there should be a direct effect on pulmonary circulation in the right side of the heart. This seems to be definitely disputed by practical clinical and postmortem experience. Except in very far advanced chronic silicotuberculosis with its massive fibrosis, evidence of right ventricular embarrassment has not been found. It is true that in occasional cases, electrocardiographic evidence of right ventricular preponderance has been noted. The subject is still controversial, and since it has been my experience that other co-existing lesions of the heart have been overlooked both clinically and at the postmortem table, I am reluctant to consider that the silicotic process materially affects pulmonary circulation and the right side of the heart.

The question of emphysema is extremely important to clinicians particularly because emphysema contributes to pulmonary disability. Diffuse emphysema should not be confused with patchy compensatory emphysema. Generalized emphysema is rarely found, but patchy, encapsulated emphysema is a natural result of the more advanced stages. Diffuse emphysema is frequently encountered in individuals with a mild degree of silicosis. This emphysema is usually consistent with the age and weight and posture of the individual. In this regard, and with respect to the condition of the heart, it should be remembered that emphysema itself, in contradiction to reported text-book opinion, does not produce right-sided cardiac hypertrophy.

EFFECT ON GENERAL HEALTH

The effect of silicosis on the general health requires much more critical analysis. A variety of conflicting opinions range all the way from the condition being entirely innocuous to those who consider that silicosis very definitely contributes to a general reduction in the state of health, some even pointing out or offering statistical evidence of the lower age ranges at which these individuals develop or die of other totally unrelated conditions. Postmortem experience in this country at least and in our hands has not given evidence that silicosis in the absence of tuberculosis in any way contributes to the development of conditions of extrapulmonary origin. A rather extensive clinical survey does not give evidence of silicosis in the absence of tuberculosis causing a state of poor health.

Much has been said of the relationship of silicosis or the parenchymal disease to the pleura. Suffice it to say here that both experimental and human material would seem to indicate that it does not produce a pleural lesion or pleural pathology until the pleura has been affected by a complicating disease. In any event, it is not likely that pleural ad-

hesions are of any great significance since postmortem in conditions other than silicosis would offer mute evidence of the benign nature of even generalized bilateral pleural obliteration.

Dr. Habbe will speak to you of the x-ray manifestations of this condition. It should be mentioned here and emphasized again that it is extremely important for roentgenologists to study intensively the pathology of this condition and to develop a technique and interpretation which will permit a refinement in the diagnosis of the very early and pre-nodular phases. It is not sufficient to dismiss the so-called pre-nodular phase as being beyond clinical diagnosis. It is not sufficient to say that pre-nodular silicosis may be confused with a variety of other conditions. Long experience with groups of individuals in the dusty trades definitely establishes in the minds of shrewd, careful observers a rather impressive and typical chest, roentgenologically speaking. It is quite true that pure objective reasoning might not permit a correct diagnosis, but it is also quite true that experienced roentgenologists will give a surprisingly accurate analysis. This phase of silicosis requires more intensive study and can probably be accomplished only by a cooperative study between pathologists and roentgenologists, particularly in those cases coming to postmortem dying of other conditions than silicosis. It is extremely important that the postmortem studies in this disease be pushed to its limit since there is a wide gap between the experimental studies and the applications of these to human material.

I have mentioned before the significance of hilus lymph node involvement and wish to repeat here that there is not necessarily a correlation between the pulmonary findings and what might be expected in the hilus lymph nodes. That is to say, it is in my experience untenable to hold that the lymph nodes become blocked and extensively involved before the condition is manifested to any extent in the lung. This, however, is not true in the presence of an infection. In other words, an addition of tuberculosis completely changes the relationship between the lymph node involvement, lymphatic drainage, and pulmonary involvement. Roentgenologists should focus their studious attention on the hilum and mediastinum to the end that a greater degree of differentiation be achieved.

The symptomatology of the condition has been so controversially discussed that only one statement is necessary at this time; namely, that a more critical approach on the part of clinicians is necessary, a decidedly unbiased subject is necessary, and third, the application of methods of accuracy must be developed and applied to this condition. This has a direct bearing on what constitutes disability. The physician is faced with a division between a concept of medical disability and a concept of industrial disability. To my mind, this is frequently a matter of splitting hairs, but until the laws are changed or broadened or re-interpreted, it behooves the physician dealing with this condition to thoroughly inform himself on this subject. In this respect it is also important to determine whether or not it is the silicosis causing the disability or other conditions. Finally, at the present time we have only one criterion. In the absence of active disease or threatening infection, the ability to do accustomed labor is the only yard-stick we can rely on.

Does silicosis aggravate tuberculosis, or in turn is it aggravated by tuberculosis; and finally, does silicosis enhance the progress of the tuberculosis, or is there a tendency to control the infection? By and large, it may be said that the combination of silicosis and tuberculosis is a fibroid condition and that fibrosis predominates and that the development of ulcerative lesions and bronchopneumonic spreads, will depend very largely upon disturbances in the nutrition of the lung structure produced by the advanced fibrosis and the vaguely understood "resistance to infection." In spite of the experimental evidence I am not greatly convinced by human material that there is a special affinity between silica and tuberculosis. The affinity is rather on the grounds of the fibrosis and the tuberculosis. Much investigation is still to be carried on in the field of local tissue-immunity states, and a more precise knowledge is much in demand. The minute rela-

tionship of the tuberculosis to the silicotic nodule is in our opinion probably through permeable lymphatics and blood vessels. Later a perinodular reaction may occur by direct extension either from within or from neighboring nodules, so that from a practical point of view we have to recognize a peri-silicotic tuberculous reaction. In this regard the disputed question of the spontaneous necrosis of a silicotic nodule must be mentioned. I was of the opinion that a pure silicotic nodule could liquefy. My attitude on that has changed since I now believe that when the character of the silicosis nodule is lost infection has supervened. The absence of organisms is not necessarily proof of the absence of the infection.

HISTOGENESIS

The exact histogenesis of silicosis is in our opinion in the nature of a perilymphangitis and we do not agree with some European investigators who state that it is an endolymphangitis. For us the perilymphangitis is the basic phenomenon, and consequently this concept explains the localized nodular character of silicosis.

Silicotic confluence is of great importance. It is our opinion that infection is largely responsible. Sometimes complicating dusts contribute, and occasionally localized patchy atelectasis. Important is it to remember that while tuberculosis is frequently, and probably most frequently, responsible for confluence, other infections may produce the same phenomenon.

For purposes of diagnosis, chemical analysis of tissue is being widely used. It is an interesting investigation and should be encouraged. The chemical analysis of the lung does not constitute a diagnosis of the disease. It merely offers evidence of etiology.

Progression seems to be characteristic of the whole picture of silicosis, but it is our opinion that beyond a certain early stage of the disease and once the firm nodule has been formed, progression results from infection or continued exposure.

The disease is primarily a mesenchymal reaction and the entire phenomenon is dependent upon the presence of alveolar phagocytes, lymph endothelium, and the chemical irritation of silica, which has the property of precipitating fibrils of collagen and ultimately connective tissue fibrils from the clusters of these phagocytes. The dust particle first produces its damage probably by a chemotactic action on alveolar phagocytes. Speed seems to be characteristic in contrast to the cellular response to non-irritating dust. Transportation of the loaded phagocytes takes place rapidly to local lymph depots where they are precipitated, and the first phenomenon occurs; namely, migration by the phagocytes to hilus lymph nodes. The process from then on is a continuous piling up and the extent of the involvement is a question of dosage. With the progressive obliteration of lymphatics, extension to pleural lymphatics, and subdiaphragmatic lymphatics occurs. In spite of their solid appearance, there seems to be evidence that most of the lymph nodes remain permeable. In the lung the small nodules reach a definite size, become fibrotic, and either compress or obliterate blood vessels. Previous scars and infection affect this structure in the first instance by preventing drainage and in the latter instance by increasing the exudative phenomenon.

A proper concept of the histogenesis must begin with a consideration of the influence of finely divided dust of any character on the lung. Convenient for study are the dusts of coal and iron. Primary differences in the cellular response to coal or iron and silica are explained by the fact that the former are to all intents not cytotoxic. That is to say, even in severe concentration, the individual cell character of the stimulated phagocyte is preserved, whereas the cell engulfing and apparently dissolving silica is rapidly affected and changed. More precise knowledge of the intracellular reaction is much needed. We have some evidence to show that under the influence of silica the migratory phagocyte is transformed into connective tissue fibrils and dense collagen without apparently or at least not necessarily passing through the recognizable fibroblast stage.

The severity of the reaction determines the time of nodule formation and the number and size of the nodules. In all of the material available to us, we were only rarely

able to recognize in the tissue response any semblance of a "foreign-body reaction." Giant cells and epithelioid reaction do occur in the uninfected case, but very infrequently. Lymphocytic perinodular infiltration may be present, but most often seems to be associated with secondary processes. Of these, non-specific infection seems most common.

Blood vessels are intimately involved because of the close relationship between the pulmonary lymphatics and the pulmonary veins, although peri-arterial reactions also develop. The extremely mobile vascular bed of the lungs responds to the occlusion of individual vessels. The extent of this collateral response is not yet well known. Serial section nearly always reveals permeable vessels and lymphatics in all but very large or infected nodules. Capillaries do not seem to be materially affected. Alveolar septa are free of infiltration by fibrous tissue and the loaded phagocytes do not sluggishly accumulate along the pulmonary capillaries as is the case with coal dust.

Distribution of the nodules is uniform. Apparent concentration in certain lung fields must be distinguished from real variations in distribution. The latter is generally the result of previous infection—the former may be merely the result of lung distortion by emphysema or even postmortem effects.

The nodules may successfully resist the destructive action of tubercle bacilli and develop ultimately into completely fibrosed masses. These are characterized grossly by an India-rubber consistency, sometimes with calcified areas. Calcification is not, however, characteristic of the primary lesion. Fusion of these healed areas gives rise to masses in the lung of very considerable size. Microscopic studies of these massive areas of fibrosis will reveal the nodule units of silicosis. Cavitation in these masses may be the final episode. Terminal infection is most common. A few cases make their exitus from respiratory failure.

A completely adequate concept of the effects of silica on the lung requires an intimate knowledge of the finer histopathology, including intracellular reactions and a deep insight into the finer anatomy of the lung. Still to be studied are the changes in the pattern of lung anatomy, the effects of this process on blood vessels, bronchial structures, and elastic tissue. In addition, investigations into local antigen-antibody processes are in order.

Silico-Tuberculosis; Roentgenologic Aspects of the Differential Diagnosis*

By J. E. HABBE, M. D.
Milwaukee

THE otherwise healthy individual developing some form of uncomplicated silicosis presents certain abnormal appearances to roentgen examination which ordinarily become increasingly easy of recognition and classification as the fibrosis increases. At least this has been the common experience of such examiners as have had a sufficiently large experience with the manifestations of uncomplicated silicosis as seen in miners, foundrymen and those employed in the stone cutting trade here in Wisconsin. While many such workers are for all practical clinical consideration essentially uncomplicated cases of silicosis, there is a remaining large number, as would be most natural to expect, who have some additional disease or diseases other than silicosis which may contribute to the symptom complex. It is therefore one of the biggest problems for all physicians concerned with the examination of silicosis cases to correctly recognize the complicating or co-existing lesions and to correctly evaluate each disease process insofar as it is productive of symptoms alleged or of disability manifested. While the writer is well aware of the mass of experimental data emphasizing the particular danger of a terminal

* Presented before 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, Sept. 1935.

tuberculous complication for the silicotic and is also aware of various statistical studies and medical opinions frequently supporting more or less completely the experimental work, he cannot help but feel that attention has been so strongly focused on the search for the tuberculous complication, that in many instances other equally important diseases totally unrelated to the silicosis, are completely missed or ignored, and in the case of certain complicating chest lesions the mistaken diagnosis of silico-tuberculosis is too commonly made. This leads not merely to many wordy medico-legal disputes but produces a most deleterious effect on the misdiagnosed individual's morale in that he considers himself hopelessly doomed whereas his non-tuberculous complication may be amenable to treatment and his span of living not appreciably reduced.

Unquestionably the most important subclassification of cases of combined silicosis and tuberculosis is the correct grouping as to the tuberculous element being active or inactive. The classification of cases into groups of silico-tuberculosis and tuberculo-silicosis, based upon which lesion predominates or which is of longer standing, is of some importance in the consideration of prognosis, but the much more important immediate concern as to active treatment requirements and as to medico-legal status devolves upon the question of activity, and if the case is an active one, the period during which activity has existed.

DIFFERENTIAL DIAGNOSIS

While the final differential diagnosis of silico-tuberculosis from other chest diseases involves skilled clinical correlation of all available data, there exists within the realm of the x-ray examination alone, taking the medical and occupational history of the individual into careful consideration, a great fund of valuable differential diagnostic material if such radiologic study is skilfully and thoroughly performed and is backed by an adequate experience and diagnostic acumen in this particular field. There is no more reason for limiting the x-ray investigation to a routine stereotyped form of chest study than there is of limiting the clinical examination to a routine sterotyped study of the patient's lungs, regardless of whether the complete diagnosis is required for purely medical or for medico-legal reasons. If the examiner will make it a rule simply to recall that a silicotic individual may be afflicted with all of the chest diseases which the non-silicotic patient may develop and keep at least the more common of these constantly in mind when examining individuals who have been exposed to a dust hazard, he will not so frequently err in making a provisional or flat-footed diagnosis of silico-tuberculosis when some non-tuberculous process actually exists.

No one can skilfully interpret the roentgen manifestations of intra-thoracic disease except that he have as a background a clear understanding of the roentgen anatomy of the average healthy adult individual and also good understanding of the great influences of certain variable factors in roentgen technique of the chest. There is probably no region of the body where wider variations in x-ray appearance of the parts are produced dependent upon the individual's body build, the cardiac action, and the "technique" utilized. It is rather easy to "blot out" or completely obscure certain finely distributed pathologic changes by "over-exposure" or by slow exposure technique or slight motion, and it is equally easy to "build-up" in the opinion of the inexperienced an appearance of pathology by slight "under-exposure" or by slow exposure technique. The matter of optimum exposure time for chest radiography is in itself a rather large subject. Suffice it to say very briefly that within the last several years when high milliamperage rapid exposure work was being first perfected, a representative group of the best chest roentgenologists in this country was given sets of films on a number of individuals representing exposure times varying from 25/100 second to 1/120 second with milliamperages varying from 50 up to 1000. While many of these men found no diagnostic superiority in films made in, say 1/120 of a second using 1000 milliamperes as compared to 1/20 second using 250 milliamperes, there was a regular recognition of increased diagnostic superiority of films taken in 1/10 sec-

ond or faster over those requiring longer than 1/10 second exposure technique. It became obvious that the preference was not so much a matter of better tissue contrast but rather of the minimizing of cardiovascular blurring, and yet there remains a number of less experienced and less competent examiners today who are mistakenly considering the very "contrasty" but slightly blurred chest film made in ¼ second or longer to be the equal or superior to the rapid exposure film of 1/20 or 1/10 second which latter may be a film of less pronounced contrast and yet far superior in diagnostic detail. Unquestionably it is this factor of marked variation in exposure time for making chest films in different physicians' offices plus differences of roentgenologic judgment which accounts for the marked difference of diagnostic opinions on individual cases, the examiner on the one hand with films of slow exposure technique often describing a widely distributed fine nodulation while the second examiner with rapid exposure films stands confidently against so much as well-developed linear accentuation (peri-vascular, peri-bronchial thickening). We have still to mention the matter of the many slight variations from the strictly normal appearance which are so commonly encountered in the roentgenologic surveys of healthy individuals, which in some instances are the result of certain congenital variations, as for example the azygos lobe formation of the right side or the excessory inferior basal lobe of either side, or more commonly the appearances produced by past non-specific respiratory or healed childhood tuberculous infections. Yet how often these anatomical variations or ancient scars are misinterpreted in terms of active disease with guarded prognosis particularly when an element of silicotic fibrosis also exists.

While the occurrence of the above-mentioned variations in healthy adults may result in certain cases of early silicosis being missed by the conservative interpreter, I feel that the tendency to "overread" the chest films of workers in dust is the usual error in the hands of the inexperienced, as would be the tendency for such examiners to "overread" chest films of any individuals who might regularly describe one or more of chest symptoms. The particular tendency to overread films of workers in the dusty trades is due I believe to two factors: (1) the fact that the majority of such workers when submitted to examination have already had many years of exposure to dust, the hazard of which is so often impossible to accurately evaluate, and (2) the fact that so many symptoms are so regularly alleged with reference to the chest in practically all individuals whose cases are in litigation.

TUBERCULOSIS ASPECT

Having now discussed some of the sources of error in the x-ray interpretation of the silica reaction, the tuberculosis aspect may be considered. Concerning the x-ray diagnosis of silico-tuberculosis a word of caution is perhaps justified. It is the writer's belief as a result of recent past experiences where there has been postmortem checkup of x-ray findings, that the evidence necessary for the roentgen diagnosis of tuberculous infection complicating silicosis, referring particularly to the ordinary apical parenchymal lesion, should be more characteristic for the same reasonably certain interpretation in the silicotic than in the non-silicotic individual. Not infrequently in the silicotic individual showing a very moderate amount of nodular fibrosis, there is seen in one or perhaps both infraclavicular areas a very slight appearance of nodular confluence or larger size of nodules, this appearance often being visualized in the mid lung zone and extending slightly into the peripheral zone. Such an appearance in a non-silicotic young individual with no appearance of disease elsewhere except in the infraclavicular region, would constitute sufficient evidence for a reasonably certain diagnosis of an early parenchymatous tuberculous infiltration. However in the definitely silicotic individual it has been shown from careful postmortem check-ups of a rather limited number of such cases that these appearances do not necessarily indicate definite old parenchymatous foci and the same thing has been strongly suggested by an occasional such living individual in good health showing a frankly negative tuberculin reaction. The wide variation in the size, form, and location of a

healed childhood tuberculous focus is of course well known. There can be little doubt that not infrequently an x-ray diagnosis of silico-tuberculosis (meaning in the examiner's mind by such a wording, silicosis plus a parenchymatous lesion) is based actually upon the existence of nothing more than the nodular silicosis, with the nodules grouped more closely about an old childhood focus in one upper lobe where the tuberculous focus cannot be as readily sharply delimited as in the non-silicotic individual, under which circumstances the old specific scar takes on an appearance of greater potential importance than often can be clinically verified or posthumously substantiated. While the writer would agree theoretically at least with Russell that the more advanced the silicosis the more difficult the detection of a tuberculous element, our practical experience has been that much more commonly we are able to state with certainty from the x-ray findings that a moderately advanced tuberculosis (not necessarily active) exists, which prevents the positive identification of a co-established silicosis which the long occupational exposure alone argues strongly to be present.

ROENTGENOLOGIC APPEARANCES

The roentgenologic appearances justifying a definite x-ray diagnosis of solico-tuberculosis have been repeatedly described by such authorities as Pancoast and Pendergrass, Sampson and others. Pancoast and Pendergrass in particular have done much to aid the less widely experienced worker in this field by repeatedly stating their differential findings for silico-tuberculosis as against uncomplicated advanced silicosis. They emphasize that when a part at least of the tuberculous lesion occupies the usual location with ordinary apical distribution the disease process extends well out to the periphery of the upper lobe or lobes, there may be a retraction of trachea and of hilus structures toward this peripherally located homogeneous density, and by specially dense films there is persistent certain homogeneity to the tuberculous lesion, often with scattered areas of stringy fibrosis, multiple cavities, and occasional areas of calcification. In contrast to these appearances the uncomplicated advanced silicotic should regularly not show a peripheral lung involvement, tracheal or hilus retraction, cavitation or calcification, and with dense films will show a certain coarse trabeculation and lack of homogeneity. They have also written repeatedly on the appearance of the so-called perinodular type of infection which may be an exogenous lesion developing subsequent to the formation of macroscopic silicotic nodules. This latter type of silico-tuberculosis has in our own experience been relatively uncommon although isolated cases have been observed where these appearances developed rather characteristically on serial film examination. We have much more commonly been able to recognize silicosis and tuberculosis co-existing where the appearance of the tuberculous lesion was not unlike that of adult tuberculosis occurring in undusted individuals in that there was an ordinary apical distribution with the already mentioned homolateral displacement of the trachea, upward retraction of the hilus, clouding to the periphery of the lung field, narrowing of the rib interspaces, and at times, manifestations of cavity formation. When these tuberculous foci are proven active and at least moderately advanced, according to National Tuberculosis Association classification, at times with cavity formation and with fluid level demonstrable, best by Bucky film technique, and where the individual has had a rather prolonged dust exposure and shows at least moderate silicosis, the rule has been a rather steadily downward course with fatal termination within several years in the majority of cases. On the other hand we have seen individuals of age 25 to 35 and a few older ones who have had a rather limited number of years of silica dust inhalation who showed a more limited apical tuberculosis with less conglomeration, and in addition an appearance of a perivascular peri-bronchial lymph node type of silicosis who have under ordinary sanatorium care gone from a stage of definite clinical activity to one of clinical arrest, who have shown the usual x-ray changes in the nature of partial resolution and disappearance of collateral inflammatory haze of the tuberculous lesion as would be expected in the non-silicotic individual. This experience is not

unique. D. M. Brumfiel of Saranac Lake, N. Y., who contributed to the second silicosis symposium held June 3 to 7, 1935, sent a questionnaire to a representative list of tuberculosis sanatoria scattered throughout the United States, asking as to the attitude of the medical directors of these sanatoria concerning prognosis and treatment of active silico-tuberculosis. A striking variety of replies was reported to Dr. Brumfiel. Some of the sanatoria in replying indicated that the prognosis was regularly unfavorable whereas others reported very satisfactory results in the treatment of some of these silico-tuberculous individuals. The experience of the workers at Saranac Lake in recent years has led them to feel at the present time that some individuals with active silico-tuberculosis may very reasonably expect good results from proper sanatorium treatment directed primarily to the infection process.

The writer is just sufficiently aged in roentgenologic experience to be able to hark back to the days when any radiologist was looked at with much askance when he went one step beyond diagnosing the presence of tuberculous disease from the x-ray appearances and offered an opinion as to its state of probable pathologic activity. Due, largely no doubt, to vast improvements in radiographic technique and to repeated close clinical-roentgenological correlation of tuberculosis cases in the better clinical centers, as for example Trudeau, it is now rather regularly expected that such an opinion will be included in the roentgenologic examination of individuals with tuberculosis. Today if radiologists may justifiably offer an opinion on the degree of or lack of activity of uncomplicated pulmonary tuberculosis it would seem logical that a similar opinion of activity would be in order, and would be found useful in correlation with clinical and laboratory data by the physician in charge in the case of silico-tuberculosis. In this connection it is the writer's opinion that much the same standards for x-ray diagnosis in favor of or against *pathologic* activity are in order in cases of silico-tuberculosis as in cases of uncomplicated tuberculosis. As has been previously emphasized, however, a routine set of stereoscopic chest films may distinctly fail to give the demonstrable evidence in this connection. Very often the films of desired density for the detection of the less advanced degrees of silicosis, especially where there is a tendency toward basal emphysema, are rather grossly underexposed at the upper lung level, hence a somewhat overexposed second stereoscopic set is often essential and at times as other workers have suggested, a Bucky film will offer the necessary greatly increased tissue contrast, and demonstrate cavities, at times with fluid level, located centrally within areas of massive consolidation. In those cases where x-ray appearances and clinical data are equivocal for activity, this aspect may only be determined by serial observations, and in such persons, serial stereoscopic films with a fixed technique may give a decisive answer earlier than other methods.

CARDIOVASCULAR LESIONS

The cardiovascular lesions which are so commonly totally unrelated to the pulmonary fibrosis, at least as we see cases here in the Milwaukee area, where the majority of cases appearing before the Industrial Commission are older men, are very probably the most infrequently recognized and properly evaluated, insofar as the x-ray evidences are concerned, both by roentgenologists and clinicians alike. This is perhaps in part due to the attitude of the majority of radiologists with reference to cardiovascular roentgenology in general. It would seem that except for a rather small but outstanding group, including two former Wisconsin investigators, Drs. P. C. and F. J. Hodges, now at Chicago and Ann Arbor, respectively, radiologists as a whole are willing to see the entire cardiovascular diagnosis established by the clinician with non-radiologic methods. That hypertensive cardiovascular disease rather early produces recognizable changes in left ventricle contour and gradually produces measurable increase in heart size particularly by the Hodges–Eyster area method, that aortic sclerosis in its varying degrees and that coronary sclerosis in its markedly calcified manifestation, and that myocardial degeneration may frequently be picked up by careful radiography and radioscopy, to the considerable help of the clinician evaluating

causes of disability, are facts which need to be more strongly emphasized than they have in the past. Again that the cardiovascular contour in its lateral and particularly its posterior margin in the various mitral lesions produces rather characteristic x-ray abnormalities is a further important thing to realize particularly when it is recalled that an individual with uncomplicated mitral valve disease may present lung appearances which very closely simulate the so-called "beading" or "speckling" of early nodular silicosis. It has been pointed out by Pancoast, Pendergrass and others that many cardiovascular individuals present greatly "intensified" silicotic manifestations, hence the degree of silicosis which the worker in dust actually possesses has to be variably discounted according to the nature and extent of the medilegally unrelated cardiovascular lesion. We have also experienced difficulty in evaluating the silica reaction in individuals whose pathologic fibrosis is obviously somewhat below a well developed macroscopic fine nodulation, where for any reason whatsoever (extensive unilateral fibroid tuberculosis, broncho-genic tumor with atelectasis, etc.), there is marked impairment of the pulmonary circulation in one lung, as a result of which the uninvolved opposite side shows a generalized accentuation of the lung markings which must at least in part be the result of increased vascularity and functional demand. In several instances the presence of a probable early silicosis (perivascular-peribronchial-lymph node type) was interpreted (in the sense that in reporting the x-ray findings it was stated that such a lesion could not be denied), which cases later came to postmortem and showed no perivascular-peribronchial change. I know of few situations where greater diagnostic judgment is called for than in correctly discounting such factors of "intensification" and arriving at a true estimate of the silicosis present.

SUMMARY AND CONCLUSION

I. The accurate roentgenologic differentiation of silico-tuberculosis cases from the small group of cases of advanced uncomplicated silicosis and from the large group of various nontuberculous intrathoracic lesions, requires thorough radiologic investigation as does many another major clinical problem.

II. All of the technical and diagnostic skill of the radiologist together with an adequate background of experience in the x-ray manifestations of all chest diseases will be required if one is to maintain a high percentage of diagnostic accuracy.

III. The clinician frequently needs the roentgenologic evidence for or against pathologic activity where a parenchymatous tuberculosis is found to be present. If the roentgenologist has acquired skill in differentiating old and active lesions in persons with uncomplicated tuberculosis, he will be in a position to aid greatly the clinician who must frequently have some opinion as to whether the tuberculous process is active or inactive from a single examination.

IV. When there is advanced fibrosis with an element of active tuberculosis, our serial x-rays show that cases have rather regularly progressed downward; on the other hand with limited silicosis and a not very advanced active tuberculosis the prognosis has seemed somewhat more favorable.

The Silicosis Problem; Some Medical and Social Phases*

By O. A. SANDER, M. D.
Milwaukee

VOLUMES have been written in the past five years on the clinical side of this problem. Opinions expressed in many of these writings have been at such great variance, one with the other, that one who relies only on the literature to gain his knowledge of the disease has found himself in a greater quandary than ever and knows not whom to believe. Many types and varieties of disabilities have been attributed to all degrees of

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silicosis. Most of these writings, however, have been reports on relatively few cases and it is frequently found that definite conclusions on the whole subject have been drawn from a single case. Only very few large scale surveys have been made in this country, most notable of which have been the U. S. Public Health Service and U. S. Bureau of Mines studies in granite quarries, coal, lead, and zinc mines, and in the cement industry.

No comprehensive study had ever been attempted in the foundry industry until it was started here in Wisconsin about three years ago. Over 12,000 foundry workers have been examined at least once since that time throughout the state and it has been my privilege to examine many of them personally and to read the chest x-ray films on many more. I am pleased to report that real constructive progress has been made and that as a result of these observations we may now be able to draw a few conclusions which may be somewhat surprising to those who are acquainted with the subject only from the literature.

Before proceeding with these, however, I should like to point out some of the social phases of the problem and its various ramifications. It is much more complex than the mere diagnosis of the disease from a chest roentgenogram.

Every time the diagnosis is made, the following groups of individuals eventually become involved, either directly or indirectly, because it is a compensable disease in Wisconsin: 1. The doctor who made the diagnosis; 2. The worker himself; 3. His family; 4. His fellow workers; 5. His attorney; 6. Organized labor; 7. His employer; 8. His employer's insurance carrier; 9. The insurance carrier's attorney; 10. The insurance carrier's ventilating engineers; 11. The insurance carrier's doctors; 12. The legislature; 13. The judiciary; 14. The medical profession in general, which includes pathologists both human and experimental, roentgenologists and clinicians. Each case becomes a challenge to each one of these fourteen distinct individuals and groups. The obligation of the medical man involved is to all parties concerned in addition to his immediate ethical obligation to his patient. Beyond these, he has a prime scientific duty which is concerned with pure study. His responsibility to the various parties must not color his obligation to the study of the condition.

The complexity of the demands placed upon these physicians necessitates their complete familiarity with all available information on the subject and the application of a thoroughly scientific approach. No physician, in my opinion, should offer a prognosis in a case of silicosis unless he knows the exact occupation in which his patient is engaged; the incidence of disability due to lung pathology in other workers in this occupation; unless he considers the age of the individual and the number of years he has had dust exposure; unless he knows the type of lung fibrosis produced in that particular industry as compared to other dusty trades; unless he knows whether or not the dust hazard in that particular industry is reducible by adequate ventilation and respiratory protection; unless he knows whether or not the hazard has been considerably reduced in the preceding few years; unless he goes beyond the examination of the lungs and considers his patient as a whole, to at least include the heart, blood vessels, and upper respiratory tract; and unless he knows something of the non-industrial relationships of his patient, the family, the living conditions, etc. The conclusions arrived at in an individual case must in a measure be predicated on a background of experience with a large number of similar cases.

For instance, if the patient under consideration is a molder above 50 years of age who has worked steadily in a steel foundry for over 30 years, whose heart, blood vessels, and upper respiratory tract are all found to be relatively normal for his age and who is obviously in good health, whose employer has reduced the dust dissemination in his shop, in whom an early nodular fibrosis is found in both lungs without any complicating infection, such an individual should be assured with all confidence that he is running no risk of developing incapacitating silicosis by continuing his life's work. This is at first

surprising to those of us who have generally believed that any man who has developed a nodular silicosis will eventually show progression to the point of incapacity.

CHANGE IN OCCUPATION

In the serial examinations of this large group of foundry workers, I find only a very small percentage, less than 1%, who have sufficient lung pathology to warrant a change in occupation. Nor does there seem to be objective evidence that these individuals are more prone to develop extrapulmonary disorders. They are outwardly not different than other members of society of the same age and of the same social strata. Invalidism is not characteristic of uncomplicated silicosis. It becomes more and more obvious, moreover, that the progression of the lung fibrosis in foundry workers is an extremely slow one, entirely undetectable thus far in almost three years of observation.

Certain processes in our foundries have exposed their workers to excessive dust concentrations in the past. The greatest silicosis producer before the days of fresh air helmets was sandblasting. Most of these earlier sandblasters have since fallen by the wayside. The few we are still seeing are now engaged in non-dusty work in their foundries and some of them are showing no visible progression in spite of their moderate to well advanced lung pathology. No doubt, in some of these men the fibrosis will progress to the point where they will have some difficulty in breathing on exertion, but the hope is that the majority will live out a normal lifetime without undue impairment to their ability to earn a livelihood. Those sandblasters who were fortunate enough to have escaped working under those conditions and who are now wearing the modern helmets supplied with fresh air are in my opinion well protected and none are developing silicosis.

The sandblast booth itself has contributed considerably to the development of lung fibrosis in the past in men working in the immediate neighborhood of the booth. The sand leaks have been plugged or the old booths replaced by new ones which are air-tight and well exhausted. Grinding stands are now ventilated, chippers of rough castings are equipped with respirators, laborers on the shake-out are protected by a suction grid, etc. In other words, engineers who have spent all of their time on these problems the past few years have been able to reduce the dust hazard, in most of our local foundries at least, to the point where the young men entering the industry are now well protected from acquiring even a recognizable degree of silicosis over a long period of time. Even the majority of our foundry workers who had acquired some silicosis in the past are now protected from developing a disabling lung fibrosis. As the dust concentration is reduced year by year, our prognosis in individual cases becomes more and more favorable. Fewer and fewer of the old foundry workers need be advised to discontinue their trade.

In this survey I have also had the opportunity of seeing quite a large group of granite workers. Also in this industry rapid strides have been made in affording protection to those exposed to its dust. Granite cutters in the past have been exposed to massive doses of the dust and have developed advanced disabling silicosis, many having since died of tuberculosis. More and more of these granite workers are now being supplied with various types of equipment which exhaust much of the dust at its source and prevent it from rising to the level of the nostrils. Complete protection is somewhat more difficult to achieve in this trade, however, without the added use of a filter respirator.

In a granite cutter, moreover, the prognosis which can be offered a well developed case is not as favorable as with a comparable stage in a foundry worker. He is usually a younger man who has had fewer years of dust exposure. He frequently cannot be assured that when he discontinues his trade, his lung fibrosis will not progress to the point at which some disability may result. Should he be unfortunate enough to be harboring a focus of tuberculosis in his lungs which appears well walled-off, he can by no means be assured that this latent lesion will not break down. All this is in sharp contrast to the

foundry worker and the difference doubtless lies in the far greater number of particles inhaled by the granite worker over a shorter period of time during the days when the hazard was great.

TUBERCULOSIS COMPLICATIONS

The matter of tuberculous complication requires a short discussion. I have been impressed with the relatively few cases of active tuberculosis I have found in this foundry survey, the incidence probably being no greater than in the general population. The report published in 1934 by the Massachusetts Special Industrial Disease Commission corroborates this finding. This was very surprising at first, because we had been led to believe from former surveys that 75% of all silicotics would die of tuberculosis. This figure, however, originally came from the South African gold mines which employed largely native labor. These natives are extremely susceptible to tuberculosis when removed from their native environment, as was shown by the high death rate from the disease among the Senegalese troops in France during the war. Also, the dust concentrations in these mines were extremely high before engineering methods reduced them.

Certain mines in this country also have a relatively high tuberculosis rate, as well as have granite and quartz quarries and certain tunnel operations in siliceous rock. Analysis of these industries invariably shows concentrated exposures to a dust high in silica content. With exposures to high concentrations of limestone, marble, cement, and coal dusts, on the other hand, we find the tuberculosis rate low, probably largely because of the low silica content in these dusts, but possibly also because of the high per cent of carbon or calcium in the latter dusts, which seem to be protective.

In foundries, therefore, we are now convinced that tuberculosis is not such a problem as it was first believed it would be. We are beginning to permit re-employment in the industry of numerous individuals who in the past have been advised to discontinue the trade because of apical tuberculous scars when we are convinced on serial observation that these scars are well calcified.

I do not want to leave the impression that the whole silicosis problem is completely solved in our state. Numerous dusty trade workers who are still employed will doubtless develop some incapacity in the next five to ten years, particularly those who had massive exposures of the dust before control measures were instituted, and we will continue to see cases which are entitled to compensation. We shall see fewer and fewer cases of active tuberculosis, because the open cases in our plants have been isolated in sanatoria and are no longer a menace to their fellow workers. I feel that the situation is under control and the development of new disease is being checked.

MEDICAL EXAMINATIONS

The question now presents itself as to what constitutes an adequate medical examination for the purpose of accomplishing what has been outlined. The minimal requirements in my opinion are:

1. Pre-employment examination of all workers entering a dusty trade.
2. Periodic examinations of all workers exposed to industrial dust, the interval between examinations depending on the findings at the first examination and the extent of the dust hazard to which each individual is exposed.
3. Complete occupational and past medical history on each case. Of greatest importance are the estimation of the extent of dust exposure each individual has had in the past and the history of such upper respiratory infections as chronic bronchitis, asthma, pneumonia, frequent colds, etc.
4. Complete physical examination of each with a careful chest examination.
5. A single, well-taken, postero-anterior roentgenogram of each man every time he appears for the examination.
6. Urinalysis and blood Wassermann test.

Other procedures are occasionally necessary for differential diagnosis, such as stereoscopic films, fluoroscopy, sputum examinations, blood count, tuberculin tests, blood sedimentation, etc. Certain other tests, such as exercise tolerance, chest measure-

ments and vital capacity give such unreliable results in most cases that they are not recommended for the routine examinations. To some the minimal requirements I have named may seem totally inadequate, but in my experience they furnish the complete picture in 49 out of 50 examinations. A very necessary consideration, that the cost be kept low in order that industry will be able to carry out the program, is also met in these basic requirements.

Finally, such a program is doomed to failure unless each examined workman is dealt with fairly and is not permitted to suffer because his employer knows he has some chest pathology. To prevent any injustice in this respect, it has been my policy to furnish the examined employee an exact copy of the report received by the employer. In fact, the employee delivers the employer's copy personally, no additional reports being furnished the employer. This system has met with the complete satisfaction of all parties, and is recommended.

In conclusion, it is my observation that the silicosis situation has stimulated a growing sense of obligation to the employed class by all parties involved in the problem, which has resulted in an astonishing development of medical and engineering investigation. This has reached a stage which justifies the belief that control to the point of eradication is close at hand.

(Preliminary Report of Clinical Survey of Numerous Dusty Trades, the full statistical summary to be published at a later date.)

SYMPOSIUM DISCUSSION

(Dr. Ralph G. Mills, Fond du Lac, Chm.)

Dr. Ralph G. Mills (Fond du Lac) As you read the explanation of the pathogenesis of silicosis you encounter such vague statements as the following: it is presumed that silica is dissolved in the tissues, that silicon dioxide, quartz and crystal eventually become soluble and that injury occurs by reason of the soluble substances set free. I wish to present to you the first positive proof of the correctness of this statement.

Four years ago, in the American Journal of Hygiene, there appeared a paper which I wrote with the following title, "The effect of prolonged exposure of the silicious spicules of a fresh water sponge *(Spongilla fragilis)* to the action of animal tissues; a contribution to the pathogenesis of silicosis in man." (Vol. 13, No. I, pp. 224–234 (Jan.) 1931)

In articles appearing previous to this time I had noticed an occasional reference on the part of some author to the examination of particles of silica removed from the tissues, in which he thought he could detect evidence of erosion of the edges, but there seemed to be a total lack of control of the material. One could not tell from the acuity of any particular particle thus examined as to its previous condition.

After several years search it was decided that the spicules of the fresh water sponge would be ideal material for a real test. I would like to show you now the material on which this study was made. (Slide) You see at a magnification of 150 diameters the spicules of the fresh water sponge. You will note the absolutely identical acuity of the tips of the spicules. They are identical in structure and absolutely homogeneous in appearance. It occurred to me that if this material were to be eroded the tips would probably show some blunting that could be shown photographically. The plan was then to photograph the spicules before introduction into the tissues, or at least those exactly like them, leave them exposed to the tissue juices for some months, recover them and finally rephotograph. I should add that these spicules are homogeneous silicon dioxide, comparable chemically to opal, which is an hydrated silica, and that they are formed within the cells called scleroblasts. Eventually the organic axial thread becomes covered with concentric layers of silica, until eventually it has reached its full size. Then the end of the spicule is closed over, a hard point produced at each end, and the spicule has reached its ultimate form.

After a residence in the tissues of sixteen months in certain cases, and three months in others, I think you can see without difficulty that a decided change has taken place in the spicules. (Slide) You will note that the point has disappeared from all. Instead of the spicule appearing as a solid body, it is now a cylinder, the point of which is gone and the edges have become eroded and very sharp. In other spicules not exposed for so long a time a rust-like erosion of the shaft is very noticeable.

The next slide shows a higher magnification (550) of a single spicule showing the change that has taken place. This spicule has become completely canalized.

In one experiment some of this material was introduced under anesthetic into the lung of a dog where it was left for some fifteen months. (Slide) You see here a form of fibrosis, but not the characteristic silicotic nodules, for reasons I have not time to go into. However, you can see that the material, by reason of its presence in the dog's lung, has produced a very definite fibrosis.

It is quite obvious from this, I think, that we have positive proof, adequately controlled, showing that silica is soluble in the body. It is true that this is not quite the same as quartz, that it is a little more easily dissolved by chemicals but affected in a similar manner by every chemical that affects quartz

and by no other. Therefore it is quantitatively slightly different but qualitatively identical.

So many ideas have come to mind from the papers presented by these three doctors that for me to take further time would, I think, be quite inappropriate. I shall, therefore, throw the meeting open and encourage each one so inclined to discuss one or more of these papers.

Dr. Louis M. Warfield (Milwaukee): Mr. Chairman, Ladies, and Gentlemen: I have been quite impressed by the discussion today on this question of silicosis. It has not been my good fortune to attend the conferences that have been held at Saranac Lake within the past two or three years, but I know the men out here in the past three or four years have had tremendous experience in silicosis, examining thousands of cases in various industries.

I think when one takes into consideration the opportunities we have had and the studies that have been made we can say here in Milwaukee we are beginning really to learn something about the problem of silicosis, not only in its pathogenesis, its pathological aspect, its clinical aspect but in its sociological aspect.

I cannot say much about Doctor Enzer's paper except to say I agree in all he says in regard to the question of tuberculosis in silicosis.

Dr. Habbe and I have looked at many x-rays together, so that we do not have any great differences of opinion. It has been my good fortune to be able to examine from a large industry several thousand chest x-ray films, and I am impressed more and more by one or two things which have come out from the examination of these films. They are all taken postero-anteriorly in the standardized technique at five feet.

I am impressed particularly by the unusual lung markings that one sees in otherwise perfectly normal films of young men who have never been employed in their lives. This is their first employment. They have never been exposed to any hazards of any kind from dust other than the hazard that you or I or anybody would have.

These films are so filled with what would appear to be fibrosis, linear streakings of various kinds, that one feels sometimes it would be almost correct to say it is better not to have this fellow go into a dusty occupation. But when you see hundreds of films like that of men who have been in dusty occupations for quite a while and they look exactly the same and you find the hilus shadows are all somewhat enlarged, all of them have calcified nodules or, at least, what we recognize in the x-ray film as calcified nodules, and almost all of them show calcified nodules in the substance of the lung, base, middle or apex with definite streaking, one cannot help but feel that these cases are all those of healed tuberculosis, childhood in type. I cannot see any reason why those individuals are not classed as normal individuals.

From the film that Dr. Habbe showed on the screen of the normal markings of a lung, I think one has to take into consideration there may be times in the thin individual, in individuals with a great many upper respiratory diseases under other circumstances about which we know very little, that these lung markings may be a little more extensive and yet the lung may be perfectly normal.

Further, one must remember that in a postero-anterior film one compresses, so to speak, superimposes all of the structures from the posterior to the anterior, so if one has a series of blood vessels, we will say, or bronchi which are very close together, they might be so superimposed in a postero-anterior film that they may look like a thick blood vessel which in the stereoscopic set would at once disappear and the true relationship would be given.

Dr. Sander was to talk about clinical symptoms. Whether he purposely left that out, I do not know. But I have a feeling myself there are no clinical symptoms of silicosis in the ordinary nodular stage. There is not any pain from silicosis. I cannot see how there can be. Everybody knows of the extensive tuberculosis that takes place without pain. The main symptom about which we have been reading in the literature, pain, it strikes me, had better be put in the discard. I cannot see that there are any real symptoms of silicosis in the early stages. In the latter stages, dyspnea, yes, especially on exertion, but I believe the longer we study this problem the fewer the symptoms of uncomplicated silicosis we are going to find. I thank you.

Dr. C. W. Long (Milwaukee): Recently I had the opportunity to examine completely 31 men doing electric arc welding in one of the larger plants in Milwaukee.

Heretofore silicosis has been attributed to pure silica. Until five years ago arc welding was done practically entirely with the plain rod. During the past four or five years the coated rod has been used which seems to be much better from the point of view of the manufacturer inasmuch as they get better results in their welding. But this coating contains a little over 2% of silica.

Although I have no definite proof that there is a compound of iron and silica that causes silicosis or nodulation, in about 10%, in other words three cases, I believe that this condition was caused by a compound of iron and silica, although I have examined no cases at postmortem.

I merely bring this up as a possibility that we may have a compound other than pure silica causing silicosis.

Definitely it has been established that several workers who have had increased peribronchial markings and nodulations have done no other type of work except arc welding. It seems where the welders work in confined spaces, especially inside of a tank where the ventilation is improper, the hazard is greater.

I know Dr. Sander has had experience along that line and I wish he would say a few words about elec-

tric arc welding and its hazards as far as silicosis is concerned and whether he believes there is a ferric silicate that does cause silicosis.

The iron silicate is different than most other compounds inasmuch as it sublimes. In other words, it goes directly from the solid into the gaseous state without going into a liquid state.

We are in the process of analyzing the accumulation on the shields that the electric workers are using. It is commonly known that there is a considerable amount of iron oxide on these shields but I believe there is also quite an amount of ferric silicate. I believe further that there is enough of this silicate to produce silicosis especially in the man who works in confined spaces.

Dr. Sander: I have seen the chest films of several groups of electric welders. One group which had done considerable welding in confined and unventilated spaces, such as the inside of beer tanks, showed a few cases with rather soft nodular reaction in the lungs. Just what the pathogenic factor is is still unknown but under investigation. No cases of tuberculosis have been observed in this group.

Another group which had been welding for a considerably longer period of time, but always in the open, showed no lung reaction. It would seem, therefore, since rather heavy concentrations of the welding fumes must be inspired to produce the pathological changes, whatever they are, prevention of such changes apparently is accomplished by the maintenance of adequate ventilation.

Chairman Mills: Someone this year, I think, called attention to the injurious effect of mineral fumes, particularly those following explosions, as being very harmful in conditions of this kind. That element might enter into this picture.

Dr. T. L. Harrington (Milwaukee): I want to compliment the three essayists for the presentation of material which I believe we have all profited by. I shall pass over for the present Dr. Enzer's splendid discussion and also Dr. Habbe's, to say a few words regarding Dr. Sander's paper.

Without question this problem of silicosis has produced great disturbance among our industries that are at all dusty. There has been so much confusion among the medical profession and the insurance companies regarding the hazard because they do not know just exactly what they are up against.

In relation to tuberculosis, I think I can say when a silicosis becomes a second stage silicosis the problem of getting results in the treatment of the accompanying tuberculosis is distinctly more difficult than if the tuberculosis is not complicated by silicosis.

Approximately fifty to sixty per cent of all persons in Wisconsin who have reached the age of twenty are positive to the tuberculin test, in other words have had the infection of tuberculosis, and probably ten per cent of that number have a parenchymal lesion that may or may not be healed. Even though it is healed there is more or less resulting fibrosis. One can readily understand that an individual with that type of lung entering a dusty occupation is more likely to break down than an individual who has never had any tuberculosis that affected the parenchyma of the lung.

Therefore, it seems to me Dr. Sander takes rather an optimistic view of this problem. I do not think we have solved this problem for either the employer or employee.

We are getting an increasing number of the smaller industries in Wisconsin and in the smaller industries it is not always possible to have all the refinements for dust removal that larger industries may have. We have now, and will continue to have, the problem of silicosis and pneumoconiosis as one of our difficult medical problems. Every physician practicing in Wisconsin should give special study to the problem of silicosis and other dust diseases.

A symposium such as we have just listened to is very valuable, and similar numbers should appear on future programs of the State Medical Society.

Chairman Mills: I take it that Dr. Harrington believes that pre-existing tuberculosis may be broken down or reactivated by the silicosis.

Dr. Harrington: More readily than otherwise.

Chairman Mills: That is something for us all to be on the lookout for.

Does anybody have any suggestion as to why it is when a case of pure silicosis changes over to a silicotuberculosis that the change seems to be rather a widespread one rather than limited to a little focus; that is to say, the change from the discrete nodules to those with fuzzy and cottony outlines seems to cover a wide area rather than just one little spot. Presumably if it were beginning tuberculosis it certainly would begin at one spot and gradually spread, but it does not seem to. It seems to affect a whole area. Is that evidence that it is a semi-systemic influence or that it is due to the fact that the disease has become pretty well spread over perhaps one lobe or more than one lobe before it is recognized?

Dr. Enzer: I think it is a very pertinent question, Dr. Mills. I believe that the process which Dr. Mills described, namely, a rather sudden transition from what we might call uncomplicated silicosis to complicated silicosis, is not very frequent. Our experience has been that confluent changes are focal first and then distributed. But there are such well authenticated cases, and I believe they are primarily the result of exogenous infection.

In the few instances which I personally have been able to study, individuals who show a change of pattern from discrete nodulation to a fuzzy outline which Pancoast described so well some time ago, usually go on to a fairly rapid course of silicotuberculosis until they reach the stage of massive fibrosis, on the one hand, or a disseminated tuberculous bronchopneumonia on the other hand.

I think Dr. Mills will bear me out when I say that the cases which show in the upper lobe particularly,

a change from the discrete outline to the fuzzy outline also have tuberculosis in the lower lobe, indicating bronchopneumonic spread.

Chairman Mills: I am surprised that no one has said anything about sericite as a possible etiologic factor in silicosis. The literature, particularly from abroad, seems full of this discussion on the basis of Jones' work in England; also work that has been done by Edge, with reference to inclusions in quartz. This is the source of rather heretical ideas as to the etiology, apparently suggesting that pure silica, perhaps including the silicates as well, is not the entire solution of this problem.

Has any one a contribution to make regarding that problem? Has anything been done in this state or adjacent states with reference to the presence or absence of sericite in any of the industries in which silicosis is believed to occur with any frequency?

Dr. Sander: Dr. Gardner of the Saranac Laboratory is now dusting some of his animals with sericite as he has pure quartz in the past. These experiments have not been completed but results noted thus far seem to indicate that sericite does not produce the progressive fibrosis seen with quartz.

Chairman Mills: Do you know whether in this state any effort has been made by the Industrial Commission or any one acting under or with them to determine whether or not sericite is found in any frequency in the materials mined in this state?

Dr. Sander: There has been none, to my knowledge.

Dr. Warfield: In connection with the question regarding sericite, I can answer to some extent by saying that in one plant here where they have a very splendid laboratory they have been unable to determine, in the sand they have been using, any material which they can definitely identify as sericite, except in such small quantities that they are not actually sure they have sericite. It does not seem from the microscopic film that these spicula crystals resemble those shown by Jones in his article. I asked to have this done in this laboratory. We have not found anything we can say is sericite. The material which has been used has been quartz sand without sericite.

Some Problems Relating to the Care of the Insane in Wisconsin*

By GILBERT E. SEAMAN, M. D.
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THE Bureau of Census has recently announced the figures of the last census of patients in hospitals for mental diseases in 1933, showing a total of 234,000 males and 201,500 females, a grand total of 435,500 in the United States. Of these, 374,821 are in state hospitals, 3,911 in county and city hospitals, 14,329 in veterans' hospitals, and 10,510 in private hospitals. No doubt the grand total at present exceeds 450,000.

In the state of Wisconsin there was a total of 12,870 patients of which 3,514 were in state institutions, 9,029 in county and city institutions, and 327 in private institutions, at the beginning of the year 1933.

These few figures are submitted merely for the purpose of indicating the magnitude of the problem in the country at large and in the state of Wisconsin. The problem constantly grows.

I have no doubt that you will agree with me that their care and treatment may properly be regarded as primarily a medical problem since they are all mentally sick and most of them have physical conditions also requiring attention. It has been estimated that there are approximately 4,000 physicians in the United States whose practice or duties fall largely or wholly within the field of neuro-psychiatry. There are 2,300 attached to public institutions and about 1,700 occupy part-time positions on hospital staffs representing the various fields of medicine,—none too many.

The care of the mentally sick requires the services of men who are not only qualified in neuro-psychiatry but who are skilled in the diagnosis, care, and treatment of physical ills as well, so that if the mentally ill are to receive the full benefits of modern medicine, the teaching of psychiatry and neurology must be made an important part of the curriculum of medical schools. The necessary and proper relationship of psychiatry to general medicine and general medical practice

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must be more fully realized. The importance of preventive and social medicine must be recognized to the end that physicians will be well trained for the work, general practitioners in closer touch with the problems involved, and the world-wide movement in the field of mental hygiene strengthened and supported so that preventive psychiatry may accomplish its purpose in lessening the number of those who must be separated from the home environment and from society in general and segregated in institutions.

LEADERSHIP NEEDED

All these considerations deeply concern the public at large and the agencies of government and being largely medical, call for leadership of the medical profession.

A recent report of the Committee on Mental Health of the American Medical Association states that "A state jurisdiction cannot continue to build public institution after public institution for the prolonged care of persons with various types of mental illnesses without serious embarrassment to the taxpayers, nor can it continue the non-constructive policy of temporarily shutting people away from the community without cognizance being taken of the necessity for specialized treatment and restoration to some form of community life, based on individual needs and fundamental causes, always having in mind the eventual needs of society."

The depression period has been a trying one for all hospitals and medical institutions, including the public institutions in Wisconsin. We have experienced the same difficulties that have afflicted and harassed the people as a whole. The people represented by legislative bodies have been called upon to solve financial problems and assume burdens of taxation hitherto unknown in this country. Inadequate support and mounting costs have created many difficult problems. For these and other reasons political parties and groups, not only in this country but throughout the world, have given evidence of mental unrest and uneasiness which sometimes suggests to the mind of the reflective citizen the question of whether we are not all of us at times somewhat insecure in our mental balance and abnormal in our thinking. The "lunatic fringe" seems always to be a distinct feature of every political and economic storm. We will all agree that partisan and political considerations should be entirely divorced from problems involved in the care of the sick wards of the state. The association of politics and medicine results only in an absolutely incompatible mixture and such a mixture is apt to be harmful to the patient and always creates a real problem in hospital management.

To the politicians who would seek selfish advantage for themselves or their party in the inflictions of the sick and helpless, I am tempted to say, paraphrasing Shakespeare, "A plague on all your houses!"

We are living in a troubled and changing era and I am sure that both public officials and the public in general need and desire more information and a better understanding concerning our public institutions and the needs of the patients under our care.

The general intelligence on medical matters is still far below what it should be and this condition of course will ony be remedied by the slow process of education.

INDIVIDUAL CARE

In the treatment of the mentally ill, facilities must be afforded to the mental hospitals so that we may individualize more than we have in the past. The patient must be considered as a whole, as a person, as an individual. Mass and group routine treatment will not do if they are to receive the full benefits of modern medicine. Both medical and nursing staffs must be enlarged and improved, the hospital career must be made more attractive, the full benefits of occupational and recreational therapy must be had, trained psychiatric social workers must be employed in sufficient numbers, and the patient studied in his mental manifestations, his relations to his home environment and to all the surrounding circumstances, economic, domestic, and otherwise, which may be a factor in the onset of mental disease or disorder. It has been said that of all animals man seems to be the least in harmony with his environment, although we think we are the most favored by nature, and consider ourselves the only animal with real intelligence. It is too often

forgotten that artificial restraints, impositions, insupportable burdens, ill-considered ambitions, and many other remediable influences and situations in society, determine an attack of mental disturbance.

Every real advance made in the rational treatment of mental disease from the days of Hippocrates to the present is largely to the credit of the medical profession. It is and always has been primarily a medical problem calling for the correct application of the principles of social and clinical medicine as well as the use of such advances in the art and science of medicine as have been made by studies in physiologic chemistry, bacteriology, neuro-pathology, psychology, sociology, psycho-biology, as well as in all of the branches of clinical medicine, and so the modern hospital for the care and treatment of the mentally ill must be a hospital in fact as well as in word, must have all the facilities that are necessary to modern medicine, and must no longer be a mere place where difficult and supposedly dangerous individuals are held, not always so much for their own welfare, as for the safety, convenience, and comfort of society. The true conception and the real mission of a mental hospital in these days is to concentrate every effort upon the patient with a view of returning him to society where he belongs if possible, or, if this is not possible, to arrive at such conclusions as will place him in such an environment as will conduce to his greater comfort, welfare, happiness, and usefulness, and at the same time afford the necessary protection to his family, his friends, and society in general. Costly of course!—but in the end, the truest economy and the highest humanity.

Every mental hospital should be a center for research and education in neuro-psychiatry and the dissemination of information to the public, and this effort should be with strictest reference to the benefit of the patients under our care and the general welfare of the public at large. The institutions for the sick and dependent wards of the state have too often suffered neglect through lack of understanding on the part of public officials and sometimes through political expediency. It is believed that a special department of mental hygiene should be established in connection with the State Board of Control and mental hygiene clinics encouraged in many centers throughout the state. All these things have been repeatedly urged in the past.

STATE NEEDS

As to some of the special needs in Wisconsin, President Hannan of the State Board of Control, in a recent communication states as follows:

"The hospital facilities are inadequate. This is evidenced not only by the overcrowded conditions which have forced diminution in the months of treatment which may be afforded to committed patients but by the constantly increasing intake.

"The care of the insane is one of the most pressing of Wisconsin's problems. It demands that there should be another hospital. The counties have responded much better than the state, in that they have provided for the care of the chronic cases. As I view the situation, the demand is on the state to provide more hospital facilities rather than on the counties to provide more facilities for the care of chronic cases. We may need both but if we had adequate hospital facilities then we need not hurry on to the counties' cases which could and should have longer treatment in the state institutions, and our percentage of those who may be turned back (to the homes and society) would be greater.

"Our greatest need is not more laws, it is more money for buildings and operation. With more money we could provide, not only better service within the institutions, but we could add service which we do not have now, the object of which would be to re-establish those who pass through the hospitals in their homes or in other homes and thus safeguard in a large measure the necessity of having future buildings and future expansions.

"There is nothing new about this. It has been covered throughout the years in the biennial reports of the Board of Control and of the institutions under their jurisdiction. In almost every report, beginning with 1925 and 1926 and down to the present time, these needs have been emphasized and re-emphasized."

It is perhaps pertinent to suggest that the

patients and inmates in the institutions under the Board of Control are not active politically. After they leave the institutions, there is no alumni association for them to affiliate with. Neither they nor their friends are disposed to interest themselves further in the institutions. They are not organized as a class and this may in part account for the fact that repeated representations of institution needs go unanswered. Other classes are better organized, more vocal, more in evidence at election time, and consequently more influential with the candidates for office.

FAMILY PHYSICIAN

Attention has frequently been called to the lack of proper examination of patients coming into these hospitals and to the meagerness of reports which accompany them, those examinations upon which courts base their judgments and commitments are made. This constitutes another problem. These examination blanks contemplate a full and satisfactory examination and report. Most of them are made, and must continue to be made, by general practitioners. It is recognized that ideal facilities for such examinations are not always available, but the local practitioner in the home community could often do better than he does by way of furnishing a more accurate report and history, so that the hospital physician will possess as much information as may be had from the home community to guide him in his own examination and better understanding of the patient. This I am sure would frequently redound to the patient's benefit. The home practitioner too often loses sight of the patient when he goes to the hospital. Physicians generally should be more familiar with the conduct of these hospitals, should take more interest in them and visit them more frequently, and thus keep in contact with their patients. I am sure this too would be of great mutual advantage.

I have stated that the institutions for the mentally ill in this state are over-crowded. It may be interesting to note that the rated capacity of the hospital at Winnebago is 727. We have had at times 900 patients. At the present time there are 768. The rated capacity of the Mendota State Hospital is 790. The last figures available show approximately 900 patients. The rated capacity at the Central State Hospital is 204. The last report available shows 371 patients. The rated capacity of the Northern Wisconsin Colony and Training School is 1,216. The last report available shows 1,499. The rated capacity at the Southern Wisconsin Colony and Training School is 458. The last report available shows 716. These figures clearly indicate that something must soon be done to relieve the present situation at these institutions, and it must be borne in mind always that the incidence of mental disease throughout the country and in this state is increasing.

PRESENT FACILITIES

Wisconsin is known as a progressive state and I think justly so. The hospital at Mendota was opened in 1860 and the hospital at Winnebago in 1872. They were opened in obedience to insistent demands for better care of the insane. The policy of keeping the mental hospital of reasonable size, especially designed and adapted to the care of acute cases, was early recognized as the correct policy. This, however, has not always been adhered to throughout the years and from necessity they have housed many chronic cases. The announced object at the time of their establishment was "to provide treatment for the acute insane." In the course of time the object of these hospitals was expanded to provide treatment for narcotic drug addicts, alcohol inebriates, and, more recently, especially since the later developments in the treatment of paresis and neuro-vascular syphilis by the newer methods in which the work done at the Psychiatric Institute University of Wisconsin has played an important figure, these hospitals have also been designated for the treatment of certain cases of venereal disease. The object of the Central State is "to provide care, custody, and special treatment for the criminally and dangerously insane," and the object of the Northern and Southern Colonies and Training Schools is "to care for, have the custody and training of mentally deficient, epileptic, and idiotic persons." These two latter institutions are medical, custodial and

educational in nature and their school department is provided with facilities for teaching the educable in the grades and also such trades and manual arts as are adaptable to the purpose.

Every physician or psychiatrist in his contact with the patient faces the problem of doing something for a sick man or woman, and I believe that the physician-patient relationship is fundamental, even in public hospitals. Mass and group therapy will not do. Mere academic interest in the case will not do. The approach must be that of the clinician. There must be real attention to the individual as a sick patient and intelligent consideration must also be given to the sick environment.

The need of special provision for the epileptic has long been a problem in this state and has been discussed for many years. These people do not belong in institutions for the insane. The association is harmful to them and to other patients. Wisconsin of course has its usual quota of this class of unfortunates. I think the problem is well understood and that it calls for serious attention. The answer—a separate institution for epileptics—is long overdue.

The old custodial asylum atmosphere in mental hospitals should be disspelled and would be with adequate medical and nursing service. The required standards for attendants should be raised and this means shorter hours and better pay as well as permanent tenure during good service. The suggestion of purely custodial care, imprisonment, and deprivation of liberty should be minimized. The mental hospitals should not be isolated from normal relationship with other institutions and with the community. There should be no "Private Worlds" within these institutions. So far as possible the instruments of restraint, every prison aspect, and jail methods should be minimized or limited to the strictest necessity. Our institutions, both state and county, should be hospitals in fact and not mere asylums or places for safekeeping. While these remarks refer more particularly to the hospitals for acute mental disease, they apply also to the so-called chronic asylums conducted by the counties. The county asylum system in Wisconsin has proven efficient and beneficent but the emphasis in these institutions has been placed too largely upon reducing the costs of operation and altogether too little attention has been given to the possibility of returning these people to society. The medical service has been inadequate and is susceptible to great improvement.

It is gratifying to know that the officers of this Society are much interested and thoroughly alive to the needs of the mentally ill in this state. Our President, Dr. Carter, has especially interested himself in the problems of the county institutions. The Board of Control, I am sure, and the management of the various institutions, invite and welcome the continued interest of the medical profession in these problems.

Serial Pyelography

By SIDNEY J. SILBAR, M. D. and H. B. PODLASKY*, M. D.
Milwaukee

METHODS now used in the examination of the urinary tract are well standardized and generally so accepted by roentgenologists, urologists and general practitioners. These methods are:

1. Direct or scout film. Patient should have the intestinal tract thoroughly cleansed. This film will reveal:

   a. The approximate position of kidney.
   b. Size of kidney.
   c. Any untoward opaque mass or shadow in the kidney, ureter or bladder region. This method does not always disclose whether or not shadows are within the confines of the urinary tract. It is not always possible to visualize the foreign bodies, for some are not roentgen opaque.

* Deceased.

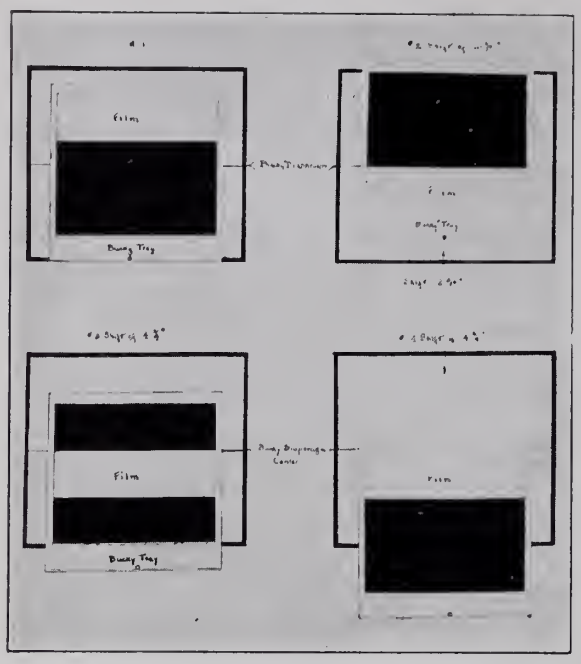

Fig. No. 1

Fig. No. 1. We acknowledge the utilization of the principles set forth by Dr. Moore of Memphis for making serial roentgenograms of the genitourinary tract. This chart represents an idea rather than a specific device. It consists of a metal pan and two sheets of lead. The pan and lead sheets should be so designed that they conform to whatever Bucky diaphragm one has in the x-ray department. The measurements are important because it is necessary to center properly in order to avoid grid lines from the Bucky and also to avoid distortion.

Fig. No. 2. A normal kidney illustrating the effect of inspiration and expiration on the position of the kidneys.

Fig. No. 3. A constant position of a ptosed kidney without excursion induced by respiratory movements. It also shows several stages of filling of the pelvis and calices. This illustration apparently shows good function of the pelvis and calices. This finding was not corroborated by the laboratory, although Legueu has stated that in ptosed or ectopic kidneys the function may not be impaired.

2. The passage of ureteral catheters to the kidney pelves. This method reveals and gives evidence of

a. A free or an obstructed ureteral passage. If an obstruction, it may be a spasm or anatomical kink, or true stricture, some viscera encompassing the ureter, a tumor of the ureter, or a stone.

b. The contents of urine collected from catheter specimens. The function of kidneys with or without the use of opaque media or dyes.

A film made after the passage of catheters partially reveals the course of the ureters.

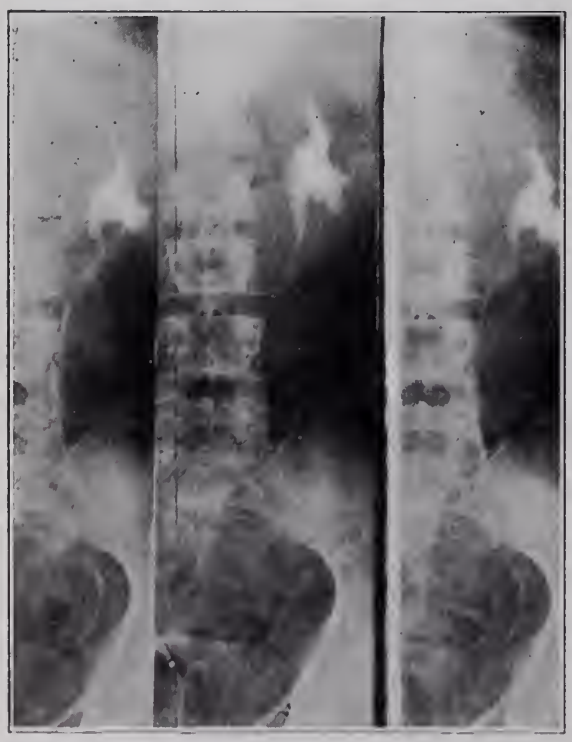

Fig. No. 2

Fig. No. 3

Fig. No. 4

Partially, because the catheter is, as a rule, less flexible than the ureter and may iron out the kinks and spasms, as shown above.

Fig. No. 4. Shows a tendency to hydronephrosis as manifested by slight clubbing of the secondary calices and rather dense filling of the pelvis and primary calices. There is no change in position due to respiration. The ureter may be seen at various stages of filling. Particular attention is called to the filling of the abdominal portion in one exposure of this series, and the tendency to filling in the pelvic portion adjacent to the bladder, in another exposure of the series.

Fig. No. 5. Not only illustrates the change in position due to respiration, but also definitely illustrates the effect on the ureter, as manifested by tortuosity of the ureter, in certain phases of respiration. One also noticed the effect of normal function at the ureteral pelvic junction.

Fig. No. 6. Offers evidence of a rather bizarre filling defect in the lower pole particularly, and also fails to show any effect on position due to respiration. One would be justified in suspecting tumor formation from this appearance, and also further justified in this assumption by the history of repeated hemorrhage. The patient was operated on and the kidney removed, but demonstratable pathology was not found.

3. This procedure is followed by filling kidney pelvis by retrograde injection through the catheter with an opaque media, such as sodium iodide in varying strengths, or the newer synthetic uroselectan products.

A film taken at this time will disclose gross anatomical and physiological changes in the pelves and calices. The kidney pelvis and calices are subject to contraction and dila-

Fig. No. 5

Fig. No. 6

Fig. No. 7. Again stresses the importance of serial study in observing function of the ureter and calls attention to the demonstration of what might be called the intramural portion of the ureter in reference to the bladder.

tation and changes due to peristalsis. A single film cannot record these changing phases. An erroneous interpretation may be made from a single observation. This may be likened to a single film examination of a hollow viscus, such as the stomach or intes tine. No one will accept a definite diagnosis from a single observation in the case of these organs.

The next step is the removal of the catheter allowing the opaque media to be propelled by peristalsis down the ureter into the bladder.

The exposure of one film at this time may show the ureter filled, or partially filled, possibly giving a wrong impression, and from which a wrong diagnosis may be made. Before one can change the film and retake, all of the media may be expelled.

4. The next method is that of intravenous pyeloureterography. This is an expensive, and for finer details, an unsatisfactory one. It consumes much time, many films, and for a very ill patient is a long and tedious procedure taking from two to three hours to obtain proper, satisfactory results. No two patients secrete the dye alike, and it is impossible to know when the optimum secretion has been reached. The value of this method according to Zwick will be in the direction of obtaining a more nearly correct estimate of renal function.

5. The next method is that of pyeloscopy or fluoroscopy of the pelvis. Manges in 1912, Legueu in 1927, Herbst in 1932 and many others contributed much to the knowledge of the physiology of the kidney by this means and advanced this as the ideal method for kidney observation and diagnosis. They found, however, that the procedure did not fit itself to all types of patients, namely, the obese and even those of a little more than medium weight were poor subjects for such an examination. They also found that the media we have at hand is not sufficiently opaque to give good visualization. It was found necessary to leave the catheter in

Fig. No. 8. Stresses the importance of studying serially pelvis and calices. Filling defects that are caused by intrinsic or organic change should remain constant. The change contour in serial films usually speaks against intrinsic or organic lesion. The function of the ureteral pelvic junction is again demonstrated, as well as the effects of respiration. It is to be noted, too, in this chart, that the ureteral study in general is greatly enhanced by this serial method.

Fig. No. 9. Demonstrates again the usefulness of the serial method in the study of pelvis and calices particularly. Two of the exposures resulted in poorly outlined primary and secondary calices, while the third reveals outlines well within normal.

place and reinject the pelvis continuously. The catheter acting as a foreign body may produce false impressions.

6. The next method was that of Jarre and Cumming, who very cleverly devised a motion picture camera attached to the x-ray table by a roll of special large films made serial pictures at the rate of 40 a minute. This is ideal, but it has the disadvantage of being complicated in structure, requiring special film in rolls and special accessories for developing. It is obvious that the cost of this method is prohibitive.

7. Thomas D. Moore of Memphis decided to take all methods described above and incorporate them for practical use and developed a technique, which he published in 1931. For some reason or other, this method did not become popular because of some technical details. For example, not all Bucky diaphragms lend themselves to this method because of small tray construction, and therefore, the necessity to rebuild them to accommodate this procedure.

Legueu, Herbst, Jarre and Cumming, and others have definitely shown that the emptying of a kidney pelvis goes through a definite cycle very similar to that of any other viscus in the body. The first phase as they have shown is more a shudder than a contraction and by increasing vibrations this movement extends to the pyelo-ureteral junction, which controls the emptying apparatus of the pelvis. From here on distinct peristaltic contractions occur which force the urine downward. Inspiration has a tendency to move the kidney downward and with it the ureter, giving one the impression of pleating. Expiration again allows the kidney to rise, the ureter to lengthen and the straightening of the functional kinks or pleats. It, therefore, follows that pyelograms whether they be retrograde or intravenous show marked changes in the entire upper urinary tract, which might be confused as pathological, if the above is not considered and if further pictures in other phases are not taken. It, therefore, follows as we have stated before that repetition of abnormality may be interpreted as pathology.

Fig. No. 10. A hydronephrotic kidney whose position is not affected by respiratory movements.

NEW METHOD

With the precepts laid down by Dr. Moore, we worked out a method which seems to be more practical, more economical and more useful. The apparatus used may be constructed for approximately one dollar. This, as seen in the first illustration, can be constructed to fit any Bucky diaphragm. The technique is that of catheterization of the ureters and kidney admitting the catheter to just within the pyelo-ureteral junction. Then 4 cc. of a 40% sodium iodide solution is used (however, any of the other roentgen opaque substances may be used). Sodium iodide in this strength is preferable because by its strength it may be used in small amounts thereby avoiding the distortion accompanying the injection of large amounts of a weak media. The patient is put in Trendelenburg position. Two and one-half cc. is injected into the pelvis. Then 2½ cc. is injected as the catheter is slowly withdrawn from the ureter and bladder. A period of two minutes is allowed to elapse before the first film is taken with the patient now in the horizontal position. Another is taken in 2½ minutes and the last in 2½ minutes following that. This may be varied so that one or more of the films may be taken in an expiratory phase and others in an inspiratory phase. If ptosis is to be considered, the patient may have his first picture taken in Trendelenburg position and the second in the upright, as the apparatus lends itself to any movement of the Bucky. (Fig. 1–10).

CONCLUSION

To summarize the points in the serial examination as shown in the accompanying illustrations, we may conclude that this method is of value because:

1. It shows the kidney, ureters and bladder in both the respiratory phases.
2. Anatomical parts can be seen filled and emptied.
3. Each kidney and ureter may be safely studied serially and separately while the other half of the body is protected by lead.
4. Owing to small areas exposed, details of kidney outlines seem to be improved.
5. Permanency of visualization of deformities or defects being always an asset, it is possible to be more certain about the presence or location of ureteral strictures or kinks.
6. Assurance is doubly sure when you can safely repeat exposures to show defects that are suggestive of pathology.
7. This method is much more economical than using large films.
8. The patient remains in one position during the examination. This is helpful when it is necessary to make comparison of all serial films.

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Postmortem Examinations in the Practice of Medicine*

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HARDLY any doctor and certainly no group of doctors exists who would not assent to the desirability of a postmortem examination, especially if it is skillfully performed by a competent pathologist and the results subsequently studied, reported to, and discussed with, his colleagues. Most intelligent physicians realize that such examinations are almost necessary to the attending

* Read before the meeting of the State Medical Society of Wisconsin, Milwaukee, Wisconsin, September 20, 1935.

physicians and the consultants. They confirm the accuracy of diagnoses, they teach the reasons for errors, and they furnish pictures of the fundamentals of disease processes, without which no doctor can intelligently diagnose or treat the living patient, and, moreover, the results of such necropsies, if carefully studied, skillfully analyzed, and ably presented, provide one of the most valuable adjuncts to the continued education of all doctors and students of medicine. Again, these examinations are valuable to the relatives because they reveal not only the causes of the last illness and death, but also the evidences of hidden diseases, inheritable tendencies, significant immunities, or favorable phases in the physical perfection of various organs or systems. In short, as I have previously emphasized, "in each examination, the major purpose is not to determine why the patient died, but rather what had happened to that patient while he lived. Were we possessed of infinite wisdom we could read in each body the history of all its environmental contacts, and even some of those of its ancestors. With our present limitations our reading must be extremely fragmentary, but, such as it is, eminently necessary in judging the causes and effects of disease. In every organ and tissue are exhibited the traces of inherited characters and acquired defects. The batterings of innumerable storms have left their marks on every group of cells. There lies hidden, and awaiting the wise explorer, all the sequences of every morbid process, including the beginning and the middle and the end."

In the face of such facts one would naturally presume that necropsies on our dead patients would be the rule rather than the exception. Unfortunately, this is not true. Several reasons are accountable for this lamentable state of affairs. One of the most important is the lack of well trained and competent available pathologists. The word "available" is to be emphasized. It has long been an honored custom to make no charge to relatives for postmortem examinations, especially when there are no medicolegal considerations. Thus, the services of the pathologic consultant in this important function are given gratuitously. But the pathologist must be supported or at least kept alive. Hence, it usually is only in the larger hospitals and medical centers that sufficient remunerative practice is provided to render available the services of pathologists for free autopsies. Probably there is no more altruistic service given by doctors to the betterment of medical practice than the providing of good pathologists for the performance and subsequent study of postmortem examinations. In spite of this fact, the endowment of such activities for the benefit of smaller communities is rarely considered, even by the doctors themselves. In these days of rapid transportation, a few pathologists situated at strategic centers might, with organized support, become available for most of the examinations for which any local physician could obtain the necessary permission. The doctors themselves can hardly meet the expenses of these pathologists, and the relatives should not be charged with them. Only the state or private endowments can solve this problem.

Another reason for the scarcity of necropsies is the failure of both pathologists and attending physicians to extract from them the inherent value which they hold and which often is only revealed by expert and attentive study. Reports of these necropsies are usually made in a stilted and verbose manner, in which excess of words serves to conceal rather than reveal the real facts concerning diseases which may have been present. Clinical pathologic conferences are held only in a few special educational centers instead of before all the smaller medical groups. What an addition it would be to any county medical society if every meeting could be favored with the review of a few interesting cases in which studies in life and after death had been made!

I have listed two notable reasons for the comparative lack of postmortem examinations in the routine practice of medicine. Two others deserve some discussion. The first is the attitude of the embalmer toward these examinations. In some communities the embalmer has concluded that a necropsy is a procedure diametrically opposed to the necessity which confronts him, namely the proper preservation and even, in part, restoration

of the deceased for purposes of the funeral. The careless disregard of this necessity by attending doctors and pathologists is usually found to be at the basis of this conclusion. The embalmer is simply trying to protect himself. In most instances conferences followed by a mutual regard of both physicians and embalmers for each others' necessities will remove the causes for disagreements. Many embalmers will actually work for and recommend necropsies providing they are certain their rights and duties are going to be respected.

The second of these two reasons is not usually mentioned and practically never discussed. I regard it as exceedingly important. The other day a patient under our care passed away. No relatives being present, we telephoned the home doctor, asking his coöperation in obtaining permission for a postmortem examination. He replied that in his opinion no such examination was necessary and, moreover, he did not wish to approach the relatives on this matter. Some time before this, a medical student who had lost his father responded to the customary inquiry that he hoped he would not be insulted by any request for an examination. A nurse who was consulted about the desirability of a necropsy on her patient who had just died advised against the procedure, adding that she had once witnessed one and never would give her consent for a necropsy on any relative or friend.

UNDERLYING CAUSE

These instances with variations have been multiplied on many occasions and occur with sufficient frequency to make us all pause and inquire into the fundamental reasons for passive and even active opposition to postmortem examinations on the part of those who theoretically, at least, should be the strongest supporters of these aids to the advancement of our knowledge of disease and the causes of death. In short, why should doctors, medical students, or nurses ever be opposed to necropsies on their relatives, patients, or friends? Many reasons of sentiment or expediency no doubt obtain, but I am convinced that the most potent of these is seldom if ever discussed or even mentioned.

I refer to the fact that the experiences which these groups have had in respect to these examinations have left in their minds a sense of repugnancy and even horror which relegates the routine postmortem inquiry into a procedure which may be all right in the dissecting room or the county morgue, but on their personal friends or relatives—"Never!" "On the bodies of poor Yorick, sure, but never on those nearer home." Why? Because for one thing,—often, when doctors have had anything to do with a dead person, except at the bedside or a funeral, there has been a lack of respect, absence of decorum or any visible sympathy with the relatives, which impresses those who look on, even these same doctors, as inexcusable callousness. These doctors' education in handling dead bodies began in the anatomic room with dissections on the derelicts of life and was succeeded by witnessing or taking part in the postmortem examinations of the bodies of patients from the city, county, or university hospitals.

The result of this education is seen in their subsequent actions. As clinicians, they are accustomed still to regard the necropsy as a spectacle at which smoking, hats on, and, in general, a careless disregard of the dead, are outstanding characteristics. As pathologists their "job" is to expose the lesions of the body in a more or less skillful dissection with all other considerations of cleanliness or disorder secondary and largely disregarded matters. This description of our attitude, as physicians, towards our dead patients, even if it has been somewhat and purposely exaggerated, demands at least our attention and perhaps even some reform in both our education and our customs.

In almost all their relations with their patients, doctors are uniformly taught and practice consideration and sympathy. In the operating rooms, at the death bed, and even at the funeral, the doctor's conduct is usually exemplary. It is surely easy to draw the conclusion that such conduct needs to be extended to the presence and handling of every dead person in the postmortem room. It would, of course, be impractical to copy in

toto the decorum of a funeral or even entirely that of the operating room, but I am thoroughly convinced that, as pathologists, internes, or attending physicians, the nearer we can approach such ideals in our attitude, at least, the more surely we can remove from the minds of those who have ever witnessed necropsies, the natural abhorrence which they all may easily have acquired. None of us, relatives, doctors, nurses, or friends, wish the bodies of our dead to be made spectacles, to be treated disrespectfully, to be given any less consideration than we feel toward them. This reform is reasonable and not difficult to make. It should begin in the medical school with our instructors and should continuously be practiced by our pathologists and clinicians.

The practice of medicine awaits in this country, perhaps with some trepidation, changes in procedure, some of which inevitably will come from within our ranks and some of which may be forced on us by outside influences. It is important in this evolution that we should tenaciously retain and faithfully guard all the good things which we have ourselves developed. One of these, I urge, is the properly conducted and oriented postmortem examination.

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Postgraduate Courses in Obstetrics and Pediatrics Announced; Two Circuits Start May 18

WHEN the Social Security Act was passed, the State Society suggested to the State Board of Health that a portion of the funds allotted to Wisconsin be allocated to postgraduate medical education. The State Board of Health felt that such a program would advance the public health of the people of Wisconsin and accordingly set aside a portion of the funds of the Child Welfare Bureau for postgraduate medical education.

The Bureau of Child Welfare has announced the opening of two postgraduate courses in the field of obstetrics and pediatrics. The courses will begin May 18 and will continue for a period of six weeks. If further funds are made available to Wisconsin under the Social Security Act, additional circuits will be established so that the entire state may benefit from this educational effort.

The courses will be conducted by instructors from the University of Wisconsin Medical School and the Marquette University School of Medicine. The courses will be managed in a manner similar to the courses conducted by the State Medical Society of Wisconsin and the Extension Division of the University during the years 1928, 1929 and 1930. There will be no charge for the course as the expenses of the courses will be paid from Social Security Funds. The instructors will travel their circuits once each week and will hold sessions one afternoon and evening in each of the five towns in the circuit. This will give the physicians who enroll for the course the advantage of a total of six days postgraduate medical education during the six weeks period.

Members who wish to participate in this educational program must enroll for the course. The courses will be given in the following cities: Manitowoc, Appleton, Waupaca, Oshkosh, Tomah, La Crosse, Whitehall, Marshfield, and Stevens Point. Physicians who wish to enroll in the courses as planned at this time may enroll by addressing a letter to Dr. Amy L. Hunter, Bureau of Child Welfare, State Capitol, Madison, Wisconsin.

When additional circuits are announced, members of the Society will be notified and enrollment forms will be included with the notification.

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« « « EDITORIALS » » »

Medical Education

THE forty-sixth annual meeting of the Association of American Medical Colleges was held in Hart House, University of Toronto, Toronto, Canada, October 28th–30th, 1935. The membership of eighty-one medical schools is made up of seventy-one four-year schools and ten two-year schools. Of the four-year schools, three are located in Canada. One member school is a graduate school; one is a graduate and postgraduate school; and one is a postgraduate school.

The Committee on Educational Policies agreed "that a more prominent place in the course should be occupied by the psychobiological, psycho-pathological and psychiatric aspects of medicine, and has, therefore, recommended that psycho-biology should be added to the subjects of the curriculum and that psychiatry be listed separately under medicine."

It was, furthermore, recommended that the aim of the undergraduate medical course was to train the student in the practice of medicine, including the cultivation of health and the prevention and treatment of disease. If these broad general requirements are fulfilled it is not the purpose of the Association of American Medical Colleges to urge member colleges to adopt a uniform method in the application of the curriculum or in the system of teaching. Liberty of choice in teaching methods is considered advisable.

The subject of post-doctor training is being considered by the Committee on Educational Policies. This is a difficult subject and deals with the training of the specialist in ophthalmology, otolaryngology, rhinology, obstetrics and gynecology, roentgenology, psychiatry, orthopedics, urology, pathology, medicine and surgery. By 1938 the applicant to a specialty shall have had three years of training in a hospital or university medical school, under adequate organized supervision, after his internship. There are about 3000 fellowships, residencies and assistantships listed in the Journals of the American Medical Association and the Association of American Medical Colleges. Less than 300 of these are for three years and not all of the 300 are under supervision of medical schools. This is a problem that requires serious study on the part of medical educators.

The report of the special Committee on the Evaluation of the Medical Aptitude Test for medical students was of interest. The Moss Aptitude Test taken by premedical students before admission to a medical school aims to predict the success or failure

NINETY-FIFTH ANNIVERSARY MEETING

Memorial Union Building, Madison :-: September 8, 9, 10, 11, 1936

of a student in the study of medicine. It has a value in dealing with averages. When applied to an individual student a whole group of factors must be considered. This Committee concluded its report as follows:

"When it is fully appreciated that there are tremendous differences between medical schools and students who go to different schools, it must be apparent that what may be true in one school may not be true in another. Viewed in this light, does it not seem reasonable that a correlation which may be highly significant for one school may be quite imperceptible in another school; and, that as far as the medical aptitude test is concerned, there is no general answer as to its usefulness in all medical schools."

The Association, however, voted to continue the use of the Moss Aptitude Test until further data are accumulated. The next meeting of the Association will be held October 27th–29th, 1936, at Emory University, Atlanta, Georgia. E.J.C.

Social Security Program

THE expansion of public health procedure in Wisconsin under the federal Social Security Act will be based mainly upon the enlargement of the existing public health program.

It is common knowledge to all that rapid progress has been made in the field of scientific medicine and public health in the last 40 years, resulting in a type of evolution in the work of the practicing physician and the responsibility of the health departments. Adjustments from time to time therefore are essential. A better understanding of the somewhat traditional yet wholesome conservatism of the medical profession might appear at times to be a complicating factor, yet on the other hand there can be no actual quarrel between the practicing physician and the public health authority in the community. The problems of both, as well as their ultimate objectives, are mutual.

The entire realm of the control of disease through the control of the environment is universally conceded to the public health official. It is his duty to protect the food and water supply, to exercise supervision of sanitary matters, to provide facilities for the control of communicable disease and to undertake the many other activities connected with the maintenance of an environment as free from danger as possible to the health of the community.

There is on the other hand the maintenance of personal health, and the practice of curative medicine involving the treatment of the individual as a personal service is the prerogative of the practicing physician. In reality, there is no place for competition between the health department and the practitioner or the privately maintained services of the physician, since their objectives are mutual. The health departments need liberal cooperation from the private practitioner of medicine. They must return it in the field of educating the public as to the great advances made in scientific medicine. The health department can become a factor for good to all interested parties. C. A. H.

POOR RELIEF LAWS

The sixth edition of "Summary of Wisconsin Poor Relief Laws Affecting Care of Indigent Sick" affecting the entire state, with the exception of Milwaukee County, was published by the State Society during April. This summary is of extreme importance to the physicians in the state and is deserving of careful reading and preservation for ready reference.

Additional copies may be had from the State Society for the use of poor relief officials. The publication is particularly timely with the cessation of the Federal system under Federal regulations which, during the last two years, have superseded the Wisconsin laws.

. . . . THE PRESIDENT'S PAGE . . . .

Postgraduate Medical Education

IN THE April issue of the Wisconsin Medical Journal appeared an announcement which is of great importance, especially to the men in general practice, and one which I hope was carefully read by every member of our Society. I refer to the announcement of plans for postgraduate education, which plans have been made possible through the availability of certain Social Security funds.

This opportunity for postgraduate medical education in obstetrics and pediatrics is open to all members of the Society free of charge, and was secured through the cooperative efforts of the officers of the Society and the State Board of Health. One of the principal objects of the program is to bring the latest scientific information on these subjects to our members, so that infant and maternal mortality may thereby be reduced.

This postgraduate medical education is to be provided in two ways: 1. Funds have been allotted to defray expenses of speakers appearing before county medical societies to discuss obstetrics and pediatrics; 2. Two circuits of five centers each have been tentatively outlined. In these circuits will be given definite postgraduate courses, one afternoon and evening each week for a certain period being devoted to them. The courses will be given by members of the instructional staff of the Wisconsin Medical School and Marquette Medical School. There is to be absolutely no charge for the course or for enrollment, the latter being in charge of the Extension Division of the University of Wisconsin.

The necessity and value of postgraduate medical education has been excellently expressed by Dr. R. L. Sensenich, President of the Indiana State Medical Association, in a recent issue of that JOURNAL. I quote in part as follows:

"Science does not pause, and the student fresh from school, giving attention to securing his financial establishment to the neglect of his scientific thought, soon finds that his medical information is dated yesterday. If an honest self-examination reveals a need of some new study, he should have sufficient energy and courage to take such steps as will bring his inventory up to date. While a license to practice entitles the holder to continue legally in this activity so long as he is not adjudged mentally or morally incompetent, the moral and legal responsibility to maintain fitness exists. There are some who would institute periodic examinations and licensure to determine if qualification to practice continues satisfactorily.

"The older practitioner, rich in experience, who keeps his medical knowledge abreast of the times, cannot be displaced until the infirmities of age disable him, for he grows more capable from day to day. But with his medical knowledge in general bearing the date of his time-stained diploma, he is easily disqualified. As he isolates himself from his medical organization and contact with the newer work and the enthusiasm of younger men, he early forfeits the high position to which up-to-date activities qualifies him, he retards the progress and security which can be attained only through group interest, and misses that which the older man can contribute from the fullness of years of observation."

The value of the courses which are to be given in our state to those practitioners who are interested in these branches, and this includes the great majority of men in active practice, is inestimable. In order for this program to be the entire success which it deserves to be, will require the united cooperation of all our members, and this I most strongly urge upon you.

Ralph M. Carter.

Society Proceedings

BROWN-KEWAUNEE-DOOR

The April meeting of the Brown-Kewaunee-Door County Medical Society was held on the 14th at the Northland Hotel, Green Bay.

"The Hematologic Response in Allergic Reactions" was the subject of an address by Dr. Theodore L. Squier of Milwaukee before this group.

COLUMBIA

The April meeting of the Columbia County Medical Society was held at St. Savior's General Hospital, Portage. Following the dinner with the members of the Auxiliary at six-thirty, scientific movies were shown. C.J.R.

CRAWFORD

The Crawford County Medical Society held a meeting at Soldiers Grove the latter part of March in honor of Dr. A. J. McDowell, a past president of the State Society. A very interesting and instructive talk was given by Dr. G. W. Henika of the State Board of Health who discussed the various plans of protecting the public health which will be carried out by the State Board of Health.

The April meeting of the Crawford County Medical Society was held at Prairie du Chien and the special feature was the presenting of the film, "Modern Methods of Anesthesia." The Goiter Committee made very interesting reports, our county being one of the best in the state as to work done in behalf of the children, as reported by the State Board of Health.

All of the 1935 members rejoined for 1936, except one, and one new member joined, Dr. Thomas Farrell of Prairie du Chien. His father, Dr. T. E. Farrell of Seneca has long been a member, giving us our first father and son combination. C. A. A.

DANE

A symposium on cancer constituted the program of the Dane County Medical Society at its April meeting at the Madison Club. Speakers on the program were:

Dr. James P. Dean, Madison, who spoke on "Cancer of the Stomach"; Dr. S. B. Pessin of Madison, who gave a paper on the value of early diagnosis of cancer; Dr. E. A. Pohle, Madison, who presented a series of cases showing the results of treatment by deep radiation therapy, and Dr. Cleveland J. White, associate professor of dermatology, Northwestern University School of Medicine, who read a paper on "Pre-Cancerous and Cancerous Lesions of the Skin and the Modern Treatment Thereof."

DOUGLAS

Closer cooperation between the medical and dental professions was urged in a discussion by Dr. G. N. Sundquist, Superior dentist, at a meeting of the Douglas County Medical Society on April 1st.

EAU CLAIRE-DUNN-PEPIN

Members of the Eau Claire-Dunn-Pepin County Medical Society met on Monday, March 30th, with a dinner at six-thirty o'clock. The following program was presented:

"Ten Minutes of Medical News" by Dr. Gjermund Hoyme, Eau Claire.

"Inhalation Anesthesia" by Dr. R. M. Waters, Madison.

"The Prevention of Goiter with a Resume of the Work of the Wisconsin Committee" by Dr. Arnold S. Jackson.

FOND DU LAC

The Fond du Lac County Medical Society held its regular monthly meeting at six-thirty o'clock on March 19th at the Hotel Retlaw, Fond du Lac. The meeting was devoted to the Goiter Prevention program. Dr. Arnold S. Jackson, Madison, spoke to the Society on "The Prevention of Endemic Goiter in Wisconsin."

MILWAUKEE

The April meeting of the Medical Society of Milwaukee County was held on the 10th. The following program was presented:

"Cancer Cell Antigens: Their Practical Significance" by Dr. J. L. Yates.

"Hydronephrosis: A Clinical Study of the Structural Involution that Follows Surgical Release of Obstruction" by Dr. James C. Sargent.

"The Relation of the General Practitioner to Clinical Investigation" by Dr. N. C. Gilbert, associate professor of medicine, Northwestern University Medical School.

OUTAGAMIE

A meeting of the Outagamie County Medical Society was held at the Conway Hotel, Appleton, on March 31st, at which time Dr. J. S. Coulter, Professor of Therapy of Northwestern University, and on the Council of Physical Therapy of the American Medical Association, gave a talk on "Physical Therapy in Chronic Arthritis." This talk was very well received and discussed at length by the members of the Society. Members from surrounding county societies were visitors at this meeting.

A joint meeting of the Outagamie County Medical Society was held on Tuesday, April 21, at the Northern Hotel. At this meeting there were representatives from the Winnebago, Fond du Lac, Brown-Kewaunee-Door, Calumet, Dodge and Waupaca Counties.

The speaker of the evening was Dr. Elmer L. Sevringhaus of the University of Wisconsin Medical School, who gave us an exceptionally interesting talk on "Endocrine Aspects of Menstrual Disturbances" which was well received. After the talk, Dr. Sevringhaus answered questions at length. M. E. S.

POLK

The regular meeting of the Polk County Medical Society was held at Osceola, Wisconsin, on March 19th, at the home of Dr. K. F. Johnson.

March being the month designated for programs on the subject of prevention of goiter in Wisconsin, the Society secured Dr. S. F. Haines of the Mayo Clinic, Rochester, who gave a very interesting talk on "Diseases of the Thyroid."

A number of slides received from the State Medical Society on goiter were shown.

A committee consisting of Dr. W. C. Andrews, Dr. K. F. Johnson, and Dr. W. A. Meilicke was appointed to work out some preventive program on goiter in Polk County. E. C. S.

PORTAGE

A meeting of the Portage County Medical Society was held at the Hotel Whiting, Stevens Point, on March 10th for the two-fold purpose of organizing a goiter-prevention campaign among the school children of Portage County and to organize a chest check-up among the contacts of known tuberculous cases throughout the county.

Dr. M. O. Boudry of Fond du Lac gave a talk on the goiter problem in the state and urged that we start a goiter-prevention campaign in this county. Dr. F. R. Krembs was appointed chairman of the county goiter committee.

Dr. A. A. Pleyte of Milwaukee gave a talk on tuberculous contacts. He recommended that a county-wide check-up be made of all contacts of known cases. This will be the first attempt in Wisconsin to make a county-wide check-up of contacts. This work will be done with the cooperation of the family physician and Dr. H. M. Coon of River Pines Sanatorium. E. E. K.

RACINE

On March 19th at 8:15 p. m. the Racine County Medical Society met at the Elk's Club for its monthly meeting.

Dr. Willard O. Thompson, associate professor at Rush Medical College, assisted by Dr. Taylor, presented a most interesting and instructive address on "Goiter, With Emphasis on Prevention," illustrated by excellent slides.

Dr. J. J. Collins, roentgenologist at St. Mary's hospital, presented an interesting study of two unusual back cases. A. M. L.

ROCK

The March meeting of the Rock County Medical Society was called to order by Dr. W. C. Sumner of Edgerton, on the evening of the 24th, at the Monterey Hotel, Janesville.

The minutes of the February meeting were read and accepted.

The applications for membership of Drs. Reuben L. Larsen and Joseph F. Kelley of Janesville were read and referred to the Board of Censors.

Threatened launching of a Mutual Aid Society by industrialists in Beloit as a means of getting low cost medical care to the low income group through a family contract was introduced and condemned.

The possibility of a county health officer with federal aid was discussed.

Dr. Arnold S. Jackson, Madison, Chairman of the State Committee on Goiter, presented a paper on "Prevention of Endemic Goiter in Wisconsin" illustrated with lantern slides.

There were forty-two physicians present.

TREMPEALEAU–JACKSON–BUFFALO

The monthly meeting of this Society was held on March 19th at Hotel Arcadia. Following the dinner, members adjourned to the office of Dr. Elizabeth Comstock of Arcadia to hear Dr. E. R. Schmidt of Madison, who spoke on "Diseases of the Liver and Gallbladder."

WASHINGTON–OZAUKEE

Fifteen members attended the dinner meeting of the Washington–Ozaukee County Medical Society at the American House, West Bend, on April 2nd. At this meeting the members went on record as favoring the holding of chest clinics in Washington County under the supervision of Dr. E. K. Steinkopff of Oak Sanatorium, Pewaukee.

MILWAUKEE ACADEMY OF MEDICINE

A meeting of the Milwaukee Academy of Medicine was held on April 21st. Dr. M. W. Shutkin of Milwaukee discussed "Amebiasis—Unusual Clinical Manifestations," and Dr. Armand J. Quick spoke on "Classification of Hemorrhagic Diseases."

MILWAUKEE SOCIETY OF CLINICAL SURGERY

A meeting of this Society was held on March 24th. After the dinner, the following program was presented:

"The Removal of a Large Dermoid Cyst from the Anterior Mediastinum" by Dr. E. V. Smith, Fond du Lac.

"Rectal Surgery" by Dr. Theodore Burbach, Milwaukee.

"Diagnosis of Peripheral Nerve Injuries" by Dr. Lewis J. Pollock, professor of nervous and mental diseases, Northwestern University.

"The Surgical Treatment of Epileptiform Seizures" by Dr. Loyal Davis, professor of surgery, Northwestern University.

MILWAUKEE NEURO-PSYCHIATRIC

The March meeting of the Milwaukee Neuro-Psychiatric Society was held on the 26th at the University Club.

Dr. M. J. Musser, Milwaukee, spoke on "Hot Bath Therapy in Certain Neurological Conditions," the discussion of which was opened by Dr. W. J. Bleckwenn of Madison.

The Society met again at the Milwaukee County Hospital for Mental Diseases, on April 23rd. "Recreational Treatment of Prepsychotics" was presented by Dr. G. J. Rich which was followed by case presentations by the following: Drs. M. A. Leach, S. K. Pollack, W. C. Connell and F. Storchheim.

MILWAUKEE OTO-OPHTHALMIC

A meeting of the Milwaukee Oto-Ophthalmic Society was held on April 14th. Dr. W. E. Grove of Milwaukee was the speaker of the evening, the subject of his talk being "Septic and Aseptic Types of Cavernous Sinus Thrombosis."

UNIVERSITY OF WISCONSIN

At a meeting of the staff of Wisconsin General Hospital on March 24th, the following program was presented:

"Changed Standards for Basal Metabolic Rate" by Dr. Marian E. Stark of the department of clinical chemistry.

"Postoperative Psychosis Associated with Thyroidectomies" by Dr. Annette Washburne, department of neuropsychiatry.

"The Present Status of X-Ray Therapy in Hyperthyroidism" by Dr. E. A. Pohle of the department of radiology.

On March 26th, Dr. F. J. Hirschboeck of Duluth, Minnesota, addressed the Medical School Convocation in the Service Memorial Institutes building. The subject of his talk was "The Nervous Patient."

At the March 31st meeting of the staff, Dr. John H. Skavlem of Cincinnati, a former student at the University of Wisconsin and a graduate student under Dr. William Snow Miller, spoke on the subject of "Basic Points in Roentgen-Ray Studies of Lung Anatomy and Pathology."

Dr. Charles H. Bunting, chairman of the department of pathology, University of Wisconsin Medical School, presented an address on "The Theory and Practice of Medicine" before the Medical School Convocation which assembled on April 2nd.

A program by members of the Department of Pathology presented a program on the April 7th staff meeting as follows:

"Case Report—Reticulo-endotheliosis" by Dr. Gorton Ritchie.

"Cancer Mortality in Wisconsin General Hospital from October, 1924, to October, 1935," by Dr. Mead Burke.

"Brain Tumors from the Above Series" by Dr. John C. McCarter.

"Rectal Tumors" by Dr. George D. Stebbins.

On April 17th, Dr. A. B. Luckhardt of the University of Chicago Medical School presented the Annual William Snow Miller Lecture. The title of his address was "A Neglected Chapter in the History of Anatomy Illustration and Instruction" and was illustrated with slides, books, and ivory mannikins, dating from 1700 A. D.

This was the ninth annual address under the William Snow Miller Lectureship established in 1928 by the Phi Beta Pi. It came near the time of Dr. Miller's 78th birthday anniversary, which was March 29, 1936.

Dr. Paul Bucy, assistant professor of neurosurgery, University of Chicago, spoke on the subject of "Structure and Function of the Pre-Central Area in the Cerebral Cortex" before a staff meeting of the University of Wisconsin Medical School.

Dr. W. D. Stovall, Director of the State Laboratory of Hygiene and professor of hygiene of the University of Wisconsin, gave an address on "Development of Public Health Practices" before the Medical School Convocation held on April 30th.

WISCONSIN UROLOGICAL SOCIETY

The semi-annual meeting of the Wisconsin State Urological Society was held at Marshfield on Thursday, April 23. Officers elected for the next year are: President, Dr. Cyril G. Richards, Kenosha; Vice-President, Dr. H. E. Kasten, Beloit; Secretary, Dr. Sidney J. Silbar, Milwaukee.

Guest speakers included Dr. Vincent O'Conor of Chicago; Dr. F. E. B. Foley of St. Paul, Minnesota, and Dr. R. S. Baldwin of Marshfield. S. J. S.

FEDERAL PUBLICATION AVAILABLE

Venereal Disease Information is a monthly publication prepared by the U. S. Public Health Service for distribution among the medical profession throughout the United States. It measures approximately 6 by 9 inches and ranges in size from 25 to 75 pages.

It is the purpose of the Public Health Service in issuing this publication to provide in condensed form a monthly summary of the scientific developments in the diagnosis, treatment, and control of syphilis and gonorrhea. More than three hundred American and foreign journals are reviewed for this work. Abstracts are made of articles describing laboratory, pathologic, and clinical work in the field of venereal diseases.

The most important literature on every phase of the subject is presented in the form of brief abstracts that are easily read. An index for the year is published with the December issue.

During the past year thousands of physicians found this publication useful in enabling them to keep abreast with developments in venereal disease work.

The cost of this publication is only fifty cents per annum, payable in advance to the Superintendent of Documents, Government Printing Office, Washington, D. C. It is desired to remind the reader that this nominal charge represents only a very small portion of the total expense of preparation, the journal being a contribution of the Public Health Service in its program with State and local health departments directed against the venereal diseases. If you wish to secure the valuable service which this monthly magazine provides, send fifty cents to the Superintendent of Documents, Government Printing Office, Washington, D. C.

THE WOMAN'S AUXILIARY

President—
Mrs. F. Gregory Connell, 420 Washington Blvd., Oshkosh
President-Elect—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
Secretary—
Mrs. Theodore J. Gunther, 2117 N. 8th St., Sheboygan
Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine
Public Relations Chairman—
Mrs. Arthur J. Wiesender, Berlin
Program Chairman—
Mrs. Ralph M. Carter, 622 S. Webster Ave., Green Bay
Hygeia Chairman—
Mrs. Harold M. Coon, River Pines Sanatorium, Stevens Point
Organization Chairman—
Mrs. Arthur Sullivan, 930 E. Gorham St., Madison
Archives and Historian—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
Press and Publicity Chairman—
Mrs. Earle F. McGrath, 429 W. 6th St., Appleton
Parliamentarian—
Mrs. Robert E. Fitzgerald, 1739 69th St., Wauwatosa
Chairman of Nominating Committee—
Mrs. Arthur J. McCarey, 902 S. Madison St., Green Bay

COUNTY NEWS ITEMS

Columbia County

The Woman's Auxiliary to the Columbia County Medical Society has recently donated $5.00 to St. Savior's Hospital at Portage and $5.00 to St. Mary's Hospital at Columbus to be used in each case in their nurseries. It is planned to make further donations for purposes of this kind in the future. At the present time, the Auxiliary is attempting to compile the early medical history of this part of the state and when it is completed it will be forwarded to the Medical History Chairman. The sale of Hygeia is being pushed by the members in order to place this magazine in six different locations at the expense of the Auxiliary.

On April 21st, a supper dance was held at the Raulf Hotel at Portage for the physicians and their wives.

Dodge County

A meeting of the Woman's Auxiliary to the Dodge County Medical Society was held on March 26th at the home of Mrs. R. R. Roberts at Beaver Dam. Mrs. C. M. O'Hora of Beaver Dam presided. Matters pertaining to the welfare of the organization were discussed and plans for a joint meeting were decided upon. Two papers, "Does Illness Begin at Forty" by Mrs. E. P. Webb of Beaver Dam, and one by Mrs. A. W. Hammond, also of Beaver Dam, on Louis Pasteur were read. The meeting closed with a social hour.

Milwaukee County

The Woman's Auxiliary to the Medical Society of Milwaukee County held its regular luncheon meeting on Monday, April 20, at the Y.W.C.A. with two hundred attending. The husbands of past presidents of the Auxiliary were guests.

The following new members were introduced: Mrs. W. T. Casper, Mrs. Carl O. Diamond, Mrs. Arthur C. Hansen, Mrs. Jack L. Kinsey, Mrs. C. H. Nichols, Mrs. J. A. Sanford, Mrs. A. J. Schloemer, Mrs. Lorenzo Boorse (Associate) and Mrs. William Kieckhefer (Associate).

Dr. Morris Fishbein gave a most entertaining and instructive talk on "Food Fads, Cosmetics, and Patent Medicines."

Florence Bettray Kelly, pianist, played several delightful numbers of her own composition.

Mrs. J. Gurney Taylor and Mrs. William Jermain were announced as delegates to the national convention in Kansas City in May and Mrs. Harry Heeb as alternate.

At the May meeting, Anita Willetts–Burnham will speak on "Around the World on a Penny."

Outagamie County

The Woman's Auxiliary to the Outagamie County Medical Society held a dinner meeting at the Conway Hotel, Appleton, on March 21st. Seventeen members were present and the president, Mrs. J. J. Laird of Black Creek, presided.

Following dinner, violin and harp selections were played by the Misses Margaret Ann and Joan Flanagan, daughters of Dr. and Mrs. G. J. Flanagan, Kaukauna. This was succeeded by an interesting talk given by Miss Marie Klein, county nurse, who spoke of the many duties of a county nurse. This was done in the form of a week's diary, thus making it a vivid experience.

A business meeting was held following the program. It was decided that the program committee endeavor to procure an outside speaker for an open meeting in the form of a tea for early in May. If they are unable to arrange for this meeting at that time, plans for such a meeting are to be made for early fall. In the event that plans for a May tea do not materialize the program will be of a historical nature, discussing the early history of the profession in Wisconsin.

Of distinct interest and gratification was the report of the Hygeia Committee, who by their efforts, were able to interest the county superintendent in placing seventy subscriptions to that publication in the county schools. Fifteen schools were too small to warrant such an expenditure on the part of the board and it was therefore voted that the Auxiliary take up subscriptions for these schools. It is felt that Hygeia will serve a real need in these outlying communities.

Portage County

Following is a report of meetings of the Auxiliary to the Portage County Medical Society which were held during the year 1935:

On January 14th, Mrs. H. P. Benn, Stevens Point, reported on her work with the Portage County Children's Board.

Mrs. Erich Wisiol, Stevens Point, discussed the latest discoveries in anesthesia before the meeting on February 11th.

On April 8th an open meeting was held with wives of the Stevens Point attorneys as guests. Mrs. H. E. Kasten of Beloit spoke on the subject of "Human Guinea Pigs."

Dr. W. W. Bauer, director of the bureau of health and public instruction of the American Medical Association, spoke on "Community Health Aids" before a joint meeting with the wives of physicians of neighboring counties.

The final meeting was held on December 2nd at which time election of officers was held. Speakers were Miss Margaret Butler, who gave a report of the nurses convention in Milwaukee and Mrs. Eccleston, a nurse on the staff of River Pines Sanatorium who discussed "The Treatment of Tuberculosis."

Hygeia was the main project of the year, the magazine being placed in all of the schools of Stevens Point.

Marinette–Florence County

Dr. Paul Teschner of the Bureau of Health and Public Instruction of the American Medical Association spoke to the Woman's Club of Marinette on Wednesday, February 19th. Mrs. M. D. Bird and Mrs. T. A. Lid of the Woman's Auxiliary acted as hostesses. In the evening, a dinner was held at Hotel Marinette at which Dr. Teschner was entertained by the Medical Society and the Auxiliary members.

After the dinner, a special meeting of the Auxiliary was called by the President, Mrs. H. W. Haasl of Peshtigo. Final plans for the 1936 Christmas party were made; a motion was made and carried to sign a contract for the orchestra.

Dane County

The Woman's Auxiliary to the Dane County Medical Society held a one o'clock luncheon meeting on March 25th at Kennedy Manor Tea Room. The speaker was Professor Ralph Clarke.

Brown–Kewaunee–Door County

On January 23rd, thirty-four members of the Auxiliary to the Brown–Kewaunee–Door County Medical Society attended a luncheon at Joannes Brothers Food Research Department, the proceeds of which were turned over to the Infant's Home of St. Mary's Hospital. A splendid talk on foods was given by Mrs. Hatch, Director of the Department. Cards were played after luncheon.

On February 28th, Dr. Ralph M. Carter, Green Bay, President of the State Society, presented an address on "Socialized Medicine" at a meeting of the Auxiliary held at the home of Mrs. L. D. Quigley of Green Bay. Tea was served by the Social Committee.

A card party was held at St. Mary's Nurses Home to raise money for subscriptions to Hygeia. Cards were played at thirty tables. Mrs. Karl Icks is chairman of the Hygeia Committee with Mrs. W. E. Mueller as co-chairman. Refreshments were served.

Kenosha County

Presenting a resume of the economic condition of this country from the landing of the Pilgrims until the crash in 1929, Attorney Leo Vandreuil, speaking on "Social Security," addressed the Woman's Auxiliary to the Kenosha County Medical Society on February 4th.

On March 27th, Dr. W. W. Bauer, director of the Bureau of Health and Public Instruction of the American Medical Association, gave a public address on "Popular Beliefs That Are Not So" in the Lincoln Junior High School at Kenosha. This address was made possible through the efforts of the Woman's Auxiliary.

Prior to his lecture, Dr. Bauer was a dinner guest of Dr. and Mrs. A. L. Mayfield at their home.

On April 7th, Dr. Ralph Bergen of Milwaukee spoke on "The Problem Child" before a meeting of the Auxiliary at the Woman's Club.

Racine County

Mrs. I. F. Thompson, Racine, presided at the monthly luncheon meeting of the Woman's Auxiliary to the Racine County Medical Society held at the Hotel Racine. The members voted to start the running year of the Auxiliary in October instead of December. Mrs. H. B. Beeson gave a report on the Girl Scout Troop sponsored jointly by the Auxiliary and the Woman's Club of Racine.

After the business meeting, the members drove to the Orthopedic School in Kenosha for an inspection tour. The members of the Auxiliary were convinced that the orthopedic school is not just an ordinary school; that it offers companionship, good food, exercise and rest and teaches the handicapped child who requires individual care, not to become overtired.

Winnebago County

The monthly luncheon meeting of the Auxiliary to the Winnebago County Medical Society was held at Stein's Tea Room, Oshkosh. A talk on cosmetics was given by Mrs. A. J. Koehler, Oshkosh.

Waukesha County

The Woman's Auxiliary met with the Waukesha County Medical Society at the Majestic Hotel, Oconomowoc, on April 1st to hear Dr. Ralph M. Carter, President of the Society, speak on "Medical Economics."

News Items and Personals

Dr. Ernst A. Pohle, Madison, addressed the Minnesota Radiological Society at their Spring meeting in St. Paul on March 28th on "The Radiological Treatment of Leukemia and Allied Disorders."

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Dr. Ralph M. Carter, Green Bay, President of the State Society, addressed the Presidential Luncheon Meeting of the Nebraska State Medical Society on April 9th, the subject being "New Activities of the State Medical Society of Wisconsin." In the afternoon of the same day, in a fracture symposium held at the same meeting, Dr. Carter presented a paper on "The Treatment of Colles' Fracture."

Dr. John P. Koehler, Health Commissioner of Milwaukee, was also a speaker on the program of the Nebraska State Medical Society. The subject of his talk was "The Family Physician's Place in a Public Health Program."

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Dr. J. K. Trumbo and Dr. W. C. Frenzel of Wausau left on April 12th for New York from which point they sail for Vienna where they plan to take postgraduate work. Before going to Vienna, they will visit Berlin. They will return to Wausau around June first.

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On Monday evening, April 13th, the physicians of Portage gathered at St. Savior's Hospital to pay tribute to Dr. Byron C. Meacher, who for more than fifty years has practiced medicine in that city.

Dr. Meacher was born in the town of Marcellon, Columbia County, in 1857 and was a graduate of Rush Medical College in the year 1880. Following internship in Cook County Hospital, he spent a year and a half in Europe when he returned to Portage to become associated with his father, Dr. William Meacher, who died in 1898.

Those present were Drs. A. Schloemilch, F. T. Gorton, C. W. Henney, A. J. Batty, J. R. Kellogg, K. A. Snyder, J. E. Bentley, W. A. Taylor, E. F. Tierney, J. P. Harkins, J. A. Rawlins, F. B. Ernsperger, J. W. MacGregor and E. P. Andrews.

A tablet, which has been delayed in preparation, will be presented to Dr. Meacher in the near future.

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Dr. John J. Boersma, who has been house physician at Sheboygan Memorial Hospital, has joined the staff of the Sheboygan Clinic to specialize in obstetrics and gynecology.

—△—

Upon recommendation of a special disaster preparedness committee of the Red Cross, organized for the purpose of coping with disasters which might occur in Milwaukee, a Committee on First Aid has been announced by the Medical Society of Milwaukee County. The Committee has made a canvass of physicians who will volunteer their services in an emergency and a course in "First Aid Teaching Methods" has been sponsored by the Committee and was conducted by Dr. William A. Ryan on April 14, 21 and 28.

Members of the Committee on First Aid are: Drs. W. J. Egan, Chairman; W. A. Ryan, Vice-chairman; G. A. Carhart, H. C. Ladewig, R. T. Hansen, P. E. Oberbreckling, George Hoffmann, U. E. Gebhard, A. A. Schaefer and C. D. Jurss.

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Dr. John O. Dieterle of Milwaukee conducted a crippled children's Clinic in Kenosha on April 8th under the auspices of the Crippled Children's Division of the State Department of Public Instruction.

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As a result of the efforts of the Woman's Auxiliary to the Medical Society of Milwaukee County, the manager of radio station WEMP, Milwaukee, has informed the Society that his station will cooperate with the Medical Society to the end that objectionable products such as "patent medicines" will not be advertised over WEMP. A careful check of all local radio programs is being made by a committee of the Woman's Auxiliary to determine

DRAMA OF "THE GUARDIANS OF YOUR HEALTH"

Each Tuesday, Wednesday and Thursday the State Medical Society presents "The Guardians of Your Health" over the two state-owned radio stations, WHA, Madison (940) and WLBL, Stevens Point (900). These health messages are broadcast at 9:00 a. m.

The schedule for this month:

May 12—Some Old and New Ideas on Measles.
May 13—Heart Disease.
May 14—Grandpa Pepper Learns About Rheumatiz.
May 19—Diphtheria.
May 20—Unconsciousness.
May 21—Diet.
May 26—Fear.
May 27—Saving Your Eyes.
May 28—A Brief Vacation.
June 2—Man's Fight to Live—Circulation of Blood.
June 3—Man's Fight to Live—The Lens Maker.
June 4—Hemophelia.
June 9—Man's Fight to Live—Smallpox.
June 10—Man's Fight to Live—Lister and Asepsis.
June 11—Diarrhea of Infants.

exactly what type of medical advertising is being broadcast.

—△—

L. A. Carpenter, who has been practicing medicine without a license in Prairie du Sac, pleaded guilty of falsely advertising himself as a doctor and of treating the sick without a basic science certificate. Carpenter was released under sixty days probation upon obtaining his promise to leave Wisconsin. He was also ordered to remove his advertising from newspapers, farm magazines and telephone directories at once.

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Dr. Stuart C. Cullen, who has been practicing in Janesville the past ten months, is now associated with Bellevue Hospital, New York city, as resident physician in anesthesia service where he expects to remain for the next two years.

Dr. E. R. Muntz, with whom Dr. Cullen was associated in Janesville, has joined the Munn–Farnsworth Clinic there.

BIRTHS

A son to Dr. and Mrs. R. W. Shaw of Marinette on April 4th.

A daughter to Dr. and Mrs. Frank E. Darling, Jr., Milwaukee, on March 4th.

A daughter to Dr. and Mrs. C. W. Long, Milwaukee, on March 14th.

A son to Dr. and Mrs. R. P. Schowalter, Milwaukee, on March 15th.

A son to Dr. and Mrs. C. F. Dunn, Milwaukee, on March 21st.

DEATHS

Dr. A. F. Heising, Menomonie, died on March 27th in St. Joseph's Hospital, St. Paul.

Dr. Heising was born on August 1, 1865, at Red Wing, Minnesota. Following graduation from Campion College at Prairie du Chien, he entered Washington University School of Medicine from which he received his degree in 1890. He then came to Menomonie to establish his practice and a few years later took postgraduate work abroad. He returned to Menomonie in 1895 to continue his practice.

Dr. Heising was a member of the Eau Claire–Dunn–Pepin County Medical Society, the State Medical Society, and the American Medical Association.

He is survived by two sisters, Mrs. Henry De Witt and Mrs. Frank Wilson, both of Red Wing, Minnesota.

Dr. R. T. A. Nixon, Brookfield, was instantly killed on March 31st when his car was struck by a train near Brookfield.

He was born in Canada on April 16, 1878. His early education was received in Canada and he later entered the College of Physicians and Surgeons at Detroit, Michigan, from which he graduated in 1903. He came to Brookfield following graduation where he remained for thirty-two years.

Dr. Nixon is survived by a daughter, Elaine, and a son, Robert; two brothers, Drs. H. G. B. Nixon of Hartland, and A. J. W. Nixon of Detroit, and two sisters, Mrs. J. W. Monsted of New London and Mrs. L. A. Keller of Brookfield.

Dr. W. G. MacLachlan, McFarland, died on April 10th at his home in McFarland.

Born in Ontario, Canada, in 1849, he received his B.A. degree from the University of Toronto and his M.D. degree from the University of Michigan Medical School in 1890. He had practiced in McFarland for over thirty-five years. In 1931 he retired from active practice.

Dr. McLachlan was a member of the Dane County Medical Society, the State Medical Society, and the American Medical Association.

He is survived by his widow; two daughters, Mrs. David Adrian, Saskatoon, Canada, and Margery, Concord, N. H.; two sons, Donald, Sheboygan, and Fergus, Augusta, Wisconsin.

Dr. E. W. Jardine, Alma, died on March 31st at his home. He had been ill for many years.

Dr. Jardine was born in the year 1864 and received his medical education at Keokuk Medical College, graduating in 1906. He practiced for a time in Muscoda and in 1906 came to Alma to establish himself.

He is survived by his widow, one son and one daughter.

SOCIETY RECORDS

New Members

E. Dufour, Hayward.
David Daley, La Crosse.
P. F. Dockry, 306 Cherry St., Green Bay.
Elwood W. Mason, 324 E. Wisconsin Ave., Milwaukee.
John Charles, 536 W. Wisconsin Ave., Milwaukee.
E. C. Kocovsky, 1411 N. 60th St., Wauwatosa.
H. C. Meyer, Necedah.
A. Kremers, Mercer.
J. C. Troxel, Appleton.
W. S. Alexander, Fond du Lac.
W. O. Paulson, Eau Claire.
O. E. Rydell, Rice Lake.
H. W. O'Neill, 303 Main St., Stevens Point.
R. H. Beech, Laona.
L. J. Seward, Berlin.
R. E. Boldt, Big Bend.
J. S. Taugher, 238 W. Wisconsin Ave., Milwaukee.
H. S. Roby, 805 S. 5th St., Milwaukee.
C. O. Cron, Camp Douglas.
A. J. Gloss, 601 W. College Ave., Appleton.
J. P. Harkins, Portage.
F. H. Kramoris, 1345A W. Fond du Lac, Milwaukee.
J. F. Shimpa, 2309 N. 36th St., Milwaukee.

Resignation

Otis W. Saunders, Green Bay.
John McGovern, Wisconsin Dells.

MEDICAL ECONOMICS

SUMMARY OF POOR RELIEF LAWS WELL RECEIVED

On March 28, the Society forwarded to each member and to each county judge and district attorney a copy of the sixth revision of the poor relief laws in Wisconsin. Many county judges and district attorneys have requested additional copies of this pamphlet for distribution among relief officials. Your Secretary was pleased to receive many complimentary remarks on the usefulness and need of this pamphlet.

WHAT THE JUDGES SAY

"In ------ County we have thirty-seven poor relief officials. I am now asking that if you at all can find it possible to forward me that amount and I in turn can distribute the same to these men, I would appreciate your doing so. I find the summary very concise and to the point and know it will be a great help to these men."

"Very much pleased with it."

"I believe copies of your synopsis of so-called poor relief laws should be in the hands of all town boards."

"I think it will prove most helpful."

"It is an excellent summary of the law pertaining to the care of the poor and I know that each member would become familiar with the different decisions if the pamphlet were available."

WHAT THE DISTRICT ATTORNEYS SAY

"I have carefully gone through the booklet, and I find it extremely beneficial in this, that it aids considerably my research for the interpretations of the various laws."

"I would like to supply our city supervisors with copies of this and also some of the other officials and hope that you have sent copies to the physicians in this city who are members of your Association because I am sure it will clarify a lot of questions especially if they would only read it instead of receiving it and then putting it aside as we think it answers a long felt want."

"I am indeed pleased to get this copy, and I would like to have copies for each town chairman of -------- County."

"I wish to commend the author of this pamphlet, and I am taking advantage of the generous offer made in your letter at this time."

"This is a very fine little publication."

It is gratifying to learn that this effort of the Society to place this summary in the hands of those whose responsibility it is to render relief is appreciated.

CURRENT COMMENT

The following passages are taken from . . . a recent book by Lord Hewart the present Lord Chief Justice of England, entitled THE NEW DESPOTISM:

"In the kind of 'legislation' which is being considered, it is usual to provide that the decision of the Minister shall be final and conclusive. When this is the case, the courts are powerless to intervene, however unjust and absurd a decision may appear to be . . . It may be said that there is no substantial ground for the fear of unfairness or corruption in the Civil Service . . . But if there were any great extension of the system of giving uncontrolled and arbitrary powers to public officials, it is as certain as that night follows day that corruption might creep in. We might then be cursed with the corrupt bureaucrat. The bureacratic despot we already have. To take a simple instance, *the treatment of the panel doctors under the National Health Insurance Acts is pure despotism.* The doctors are liable, at the mere discretion of the official who acts for the Minister of Health, to be ruined professionally by being struck off the panel, or as a lesser punishment, to be fined to an arbitrary extent."

—*N. Y. State Journal of Medicine.*

MAIL-ORDER INSURANCE

Wisconsin has good insurance laws designed to prevent the personal solicitation of our people by representatives of insurance companies that do not maintain adequate reserves or whose policies contain "trick phrases" which make them substantially

worthless for the purpose they are purchased. Every company doing business in Wisconsin by personal representatives must qualify under these sound laws.

The Commissioner of Insurance has no control, however, over mail solicitation. Again we have a situation where the buyer must beware. Questions on the status of any insurance company may be addressed direct to the Commissioner of Insurance, State Capitol, Madison. In the case of mail order insurance we suggest you investigate before your purchase.

LOSES INSURANCE

The Secretary of Wyoming reports how a physician, in an effort to settle a threatened malpractice suit, lost his insurance.

The physician concerned, upon receiving notice of threatened suit from attorney of the patient, offered to cancel the bill if the patient would sign a waiver to the effect that she did not bring suit. This offer he made to the attorney in a letter.

The patient did not accept the offer and because the physician had attempted to settle the threatened suit by his own efforts instead of permitting his insurance company to handle the matter, the insurance policy was automatically cancelled. This should reemphasize the many-times repeated warning that in facing a threatened malpractice suit the physician should have no interviews with attorneys for the patients but should report all facts promptly to his insurance carrier, and, if he carries medical defense, to the central office of the State Society.

OUT-OF-STATE REQUESTS

When it became apparent to the officers of the Society that high school debate students could not secure adequate information from which to prepare their discussions for the high school debates this year, the Society prepared literature for the students setting forth facts concerning the practice of medicine in Wisconsin and in the United States.

These publications, "Sickness Insurance and the Propagandist Foundations" and "Discussion Outline—Social Medicine and Sickness Insurance," filled a need as was evidenced by the tremendous number of requests received for the pamphlets from high school debate students.

The Journal of the American Medical Association commented on the pamphlets, and, as a result of this mention, the State Society received many requests for the pamphlets from other states. Among those societies making requests were Indiana, Michigan, New York, Ohio, and Minnesota. Just recently the American Dental Association requested one hundred copies of each of the pamphlets.

The office of the Society also received numerous requests from physicians and debate students throughout the United States. While requests were received from New York to California, the preponderance of letters came from those states east of the Mississippi river. Where requests were received from debate students or other laymen, the pamphlets were mailed to the Secretary of the State Society from which state the request emanated, so that the information to the student of the question might be correlated with the information supplied by the student's local medical organization.

This acknowledgment, by others confronted with the problem of supplying authoritative information to students, is evidence of the utility of the pamphlets.

"U" IN RUSSIA

Russia is frequently held up to physicians in the United States as having a type of medical service after which we should pattern. We have before us a letter addressed to us from the leading Institute of Experimental Medicine. Unfortunately, the typewriter on which it was written had lost the letter "u" and so after writing the letter, the head of the laboratory had to take the time to insert the letter "u" wherever it should have appeared in that letter. We note that it appears in hand in twenty places in the short letter before us.

There are many things we can say,—so many that we will say nothing.

New Activities of the State Medical Society of Wisconsin*

By RALPH M. CARTER M. D.
President, Green Bay

AS PHYSICIANS, we are so deeply concerned with the practice of medicine as a great and significant healing force, we are apt to forget, I think, that medicine is the greatest social force affecting the life and welfare of mankind.

In my brief discussion of new activities of the Society that I have the honor to represent, I would deal with those activities that represent medicine as a social force. In my observation, some of the greatest possible accomplishments of medicine as a healing force in the future, will be entirely dependent upon what the social force of medicine is able to accomplish in these critical years of economic restoration. Upon what is done now may depend not only what we may be able to do in the future but also our ability to continue to do that which we all now regard as established health procedures.

First of all, then, I regard as one of the greatest of our newer activities the re-formulation of medical organization for progress in the social aspects of our practice. This may be said to have started nearly fourteen years ago when Wisconsin organized its State Society with a full-time Secretary. I congratulate you upon your wisdom in taking a similar step within the past year.

Within the past three or four years, however, and particularly during the present year, we in Wisconsin have seen the culmination in part of thirteen years of continual growth as a social force. When the Governor appoints a special committee to study the methods of the administration of relief, federal aids and institutions,—medicine as a social force is recognized and given prominent position and assigned important work on that committee. When the State Board of Health meets to plan the wise application of social security grants for health conservation effort,—medicine as a social force is recognized and its representatives are invited to participate for the welfare of our citizenry. When a Bureau dealing with problems of the crippled child endeavors to re-map its campaign,—the social force of medicine is called upon to be of the great assistance it alone can render. When our high schools debate the question of the socialization of healing forces,—the social force of medicine is called upon to place vital information before the student bodies, and does so to the extent of over 60,000 separate pamphlets, some of them prepared particularly for Wisconsin.

During the past several months, it has been my privilege to have traveled widely in my own state, and to have discussed with large numbers of physicians the problems of medicine. Everywhere I have stressed the point that there are countless objectives that physicians as individuals can see as worthwhile; there are countless public questions upon which physicians can pass judgment as to medical aspects with the greatest of clarity, and there are countless things that each of us know should not occur if our remarkable health progress is not to be mired by political stagnation.

May I for emphasis repeat that as physicians we know what should be done and we see clearly that which should not occur. Yet, as individuals, we have not the power to realize our vision. But medicine, as a social force, embracing every eligible practitioner of medicine in the state, has that power and let there be no doubts about the truth of that statement. We may and will meet with reverses but I prophesy that they will be but temporary ones.

A SOCIAL FORCE

Speaking in broad terms, Mr. President, I would emphasize with all the power at my command that the most important, worthwhile activity of any state medical association is to organize itself as a social force to carry forward in public life and in public aspects the high aims of medicine to protect and promote the public health.

* Presented before Round Table Luncheon, Nebraska State Medical Association, Lincoln, Nebraska, April 9, 1936.

As a corollary to this, one of our accomplishments of the past few months has been to restore our dues to the pre-depression level of $15.00. In a recent issue of your splendid Journal, I observed that you had just raised your dues from $5 to $10. Speaking as an officer of a sister State Society, fully conscious out of actual experience of what your investment will bring you in actual returns, may I congratulate you upon your foresight. There is no physician living in any community in Wisconsin, small or large, general practitioner or specialist, to whom his State Society has not returned many fold and in perpetuity his dues. There is no investment that we as physicians can make that will bring us such returns as that which we make in our small annual contribution to the one organization whose very existence is based upon protecting and promoting the joint welfare of physician and patient. There is no one in this room whose very presence here does not mean that he or others have invested in him not less than $10,000 that he might be a physician. When you invest just one one-thousandth of that amount to protect and promote your investment and return, you are investing certainly the very minimum. I wonder sometimes that we are content to do so little for ourselves.

Third, you and I during the past few years have heard times without number that we live during a changing social order. Well, physicians are accustomed to that. Medicine is always changing. But mark well how our changes are made. Few, if any, have ever been made by edict. Someone, somewhere, went into a laboratory, and safeguarded by an elaborate system of controls, he experimented. If he failed a thousand times in such controlled experimentation, harm was occasioned to none. When he succeeded, he asked a few outstanding centers to check on his work and results. And if they could find no error, the favorable results that could be accomplished by the method of his finding were freely given his fellow practitioners. Now note well that the very essence of method lay first in not destroying the public confidence in what was already available simply because it seemed inadequate. Secondly, the experiment was in the laboratory and if it failed it did not affect the lives of his fellowmen. Third, duplication of experiment was avoided until the results of the original experiment were known and proved.

Let us now transfer our thoughts to the social aspects of medicine. Here we find social experimenters willing and anxious to try their luck with the lives and health of mankind. Here we find no laboratory controlled experiments but rather experiments immediately affecting hundreds and thousands of our people; experiments that once embarked upon cannot be abandoned. Here we find no cautious checking and re-checking to prevent disastrous error but a shouting from the housetops that in such and such a way may we enter the gates of Utopia. Here we find the experimenters in a brazen effort to destroy utterly the public use and confidence in all that we have, before they have anything of proven value to replace it. And most remarkable of all, I am sorry to relate, occasionally we find a man, trained in the science of medicine, who would not dream of experimenting upon a single patient, who is so thoughtless as to approve and even commend this type of human vivisection.

SOCIAL CONTROLS

This is all a necessary preface to describing briefly the fourth significant newer activity of the Society I represent. Conscious of all that I have described, the State Medical Society of Wisconsin has said that in the social, as well as the scientific aspects of medicine, we will have controlled experimentation. Now mind you, the Society has not said that there shall be no experimentation. Not at all, for it has even gone to the legislature to amend its charter that the organization of medicine might have the broadest of powers to do anything that it saw as needful and in the public interest.

That which it has said is that physicians as individuals shall not enter upon experiments in the delivery of scientific service heedless of the public interest because they visualize a money profit to be attained through mass production methods. We have said that any county medical society of our

state organization may enter upon any plan to aid in the delivery of medical service to the people of its community provided that it is in a manner approved by the State Medical Society of Wisconsin. We have approved a method for the care of the indigent through society contract with county authorities. Other methods to meet this problem are being studied. We are studying now, as we have during the past many years, experiments conducted by other societies and in other states. But we do not intend to recklessly enter upon a duplication of any of those experiments unless and until we believe the original experiment has indicated a true value. Again, the social force of medicine is being exercised in the joint and indivisible interest of practitioners and public alike.

Possibly I have talked over much of Wisconsin. If so, I would have you appreciate that that is so, not because I believe we have blazed the only trail and that all must follow us. Frequently we have but followed in the pathway of Pennsylvania, Ohio, Indiana, Minnesota and others. Therein lies the great strength of the American Medical Association,—a unity for national action in national problems,—a unity for the interchange of information on state problems between the constituent state medical associations. In our state associations we must develop our own leadership to meet our own state problems and not look for it to be supplied from some distant source, except for the handling of national problems. The promotion of means to further the delivery of medical service now and in the future, as in the past, may be a national problem but I assure you that it is not one susceptible of a single solution applicable to every state. And secondly, it is a national problem only to the extent that we in the states pride ourselves upon being in the fore in every movement to promote the public welfare. It is not a national problem because as a nation we have failed to make progress, as some might lead you to believe. There is *no nation* among the great nations of the world today that has made such achievements in the science and delivery of medical service as has ours. *No nation* will pass us in the future if we just but take the time to make certain that we do not get lost in a forest of propagandists.

In the time that has been mine, I have discussed with you the necessity of organization of medicine as a social force. I have tried to point out that it was worth the effort and the small investment we make. I have emphasized that in our social experiments affecting the lives of our people, we need all the safeguards of the scientific experiment in the laboratory, and finally, I hope I have left with you the thought that leadership in the social aspects of medicine must be developed from within and not without the ranks of medicine.

It has been a very great pleasure to be with you and I leave you by extending the very cordial greetings of the officers and members of the State Medical Society of Wisconsin, fully confident that in the years to come we, in Wisconsin, frequently will have occasion to follow in the footsteps of our brother practitioners of Nebraska.

The Role of the General Practitioner*

By FRED G. JOHNSON, M. D.
Iron River

IT IS a pleasure to appear here today in response to Dr. Middleton's invitation. It affords an opportunity to show our appreciation of Dr. Middleton's untiring efforts to take to the general practitioner of the state the current topics of interest and the crystallized thought on the recent advances in medicine. His work in carrying the University to the profession has been invaluable.

Personally, it is a pleasure to be here today. This University with its most beautiful setting and fine traditions is dear to all who attended this school. You will ever cherish the memory of your stay here and especially will you prize the friendships of your fellow students.

Nearly half a century has passed since I matriculated here and it might be of interest

*Convocation address, U. of Wis. Med. Sch., 1936.

to cite an incident to show the wonderful changes that have taken place. At that time, the football games were played on the lower campus. A rope was stretched around the gridiron a few feet back from the side lines; that was our stadium. Tickets to the game were 50 cents apiece and all who bought tickets placed them in their hat bands to show that they were cardinal boosters. All others had the privilege of standing back on the sidewalk on State Street and viewing the game for nothing. The old Wisconsin spirit was high and we were proud of our teams which included such immortals as Ikey Karel, Fred Hull, Walter Sheldon, Louis Sumner, and John Richards.

The greatest change, however, has been in the enrollment. Our entire class numbered about 260 and the total enrollment of the University was less than a thousand. At that period we did not have the time nor the opportunity for clinical study, but we did have the opportunity for a premedical education, and we had the wonderful opportunity of attending Prof. Birge's classes! He was a master in the art of teaching and had a broad vision which laid the foundation for Wisconsin medicine. Students from the University of Wisconsin were welcomed in other medical schools and scores have been an honor to our profession.

RAISING THE CURTAIN

Today I would like to raise the curtain that lies between you and your future work. In doing this it will be necessary to give some personal experiences and opinions, and I trust you will attach no interest to the personal element as it is difficult to present this view in any other way. Your future depends on your own personality plus the training you have received in schools and hospitals. The personal element lies largely in your previous walks of life. You who have been producers as tradesmen, farmers, or laborers of any sort will know well the temper of your patients and their thoughts and that will be invaluable to you in treating sick folks, but you will be deficient in business knowledge and will have to pay especial attention to that part of your work in order to secure a competence. The general practitioner is notoriously a poor business man and too many times the victim of visionary schemes, collection agencies, and fake stock salesmen. He must develop a good system of accounting and make wise, conservative investments in order to insure himself and dependents a competence for old age. Side lines of business are often tempting but, as a general proposition, should be avoided. In no other walk of life is the old saying that a shoemaker should stick to his last more valuable than in ours. You, who have had business training, will have a certain advantage, but will have to learn more of the innermost thoughts and prejudices of your community, a growth that will eventually come. Your training here at the University is excellent, and medicine is being as well taught here as in any of the schools of the country. It so happens that I have had a number of students from here and other schools take my practice at times and can assure you that by comparison you need have no fear that your training has been inadequate.

STUDY COMMUNITY

A general practitioner should study his community. As an example, I would like to describe the first community in which I practiced medicine in the northern part of this state. It was a small, sawmill town such as was found everywhere north of Black River Falls. A vast tract of timber was owned by the lumber company and the rest of the domain by homesteaders who had "proved up" on their claims and had sold their timber and remained on the land to develop farms. The officials of the sawmill were competent business men, kind to their subordinates, democratic, and all fine fellows. The mill crew were all industrious, efficient men who have always made up the backbone of America. The farmers were mostly Scandinavians who were developing the cut-over lands into farms. They were fine, high-minded people; they were not the best type of farmers for many of them had been tradesmen in the old country, and were, therefore, not the well-trained farmers seen in Dane County. The lumberjacks were industrious, honest, and improvident. They represented one of the

lower types of American labor. They had no unions nor organizations to help improve their status. Their lives have been fairly well described by Ralph Connor and others, but some of their most interesting characteristics have been overlooked. For instance, they worked to the limit of their endurance, needed no watching, and received none. They were like a swarm of bees, each doing his best, and they would not work for an unsuccessful jobber. They had a profound respect for women, they loved children, animals, and all nature. They were out to win in their lowly capacity, and their work made it possible for lumber to be delivered to our fast developing Mississippi Valley for from six to ten dollars a thousand.

It is of interest to note that from their God-given imagination, there came the only American legend, viz., the legend of Paul Bunyan and his Blue Ox. The entire theme of the legend is super-efficiency.

There were many wonderful men in those camps. I recall one four-horsed teamster who hauled logs for the Musser Sauntry Lumber Company during the winters, and during the remainder of the year worked on their farms. During the preceding six years he had never intrusted so much as feeding those four horses, caring for them in any way, for a single day, to anyone else; and a number of years before, he had handled four horses for a six-year term the same way. That meant for him, no vacations nor holidays for six years at a time, and it was entirely of this own volition.

Part of the townsite of Lake Nebagamon, my first location, had been homesteaded by a blind man named Norman. He and a bachelor son lived on the original homestead. The son cut the stove wood, and the old gentleman sold it. The story of his losing his sight illustrates the mettle of the men at that time. He and a companion were doing prospect work north of Duluth, and, while drilling, some difficulty was encountered. They were working directly over an unexploded charge, Norman using the sledge, and his companion kneeling on the ground, holding the drill. The charge exploded and blinded Norman and tore the knees of his companion so terribly that he could not walk. A more difficult situation would be hard to imagine. The nearest human habitation was an Indian settlement 30 miles away. Norman took his companion upon his shoulders and carried him thirty miles to the Indian settlement. By using the blind man's legs and the lame man's eyes, they saved their lives. They were cared for at the village while an Indian went for a physician. They were in desperate condition, their wounds full of maggots and infection. In such a community, a physician can, with good grace, enter its life and make it his ambition to relieve suffering and prolong life, and make life more enjoyable for all. He will be well paid in the doing.

LEADERSHIP

You will be called upon to assume leadership in many different occasions, for the general practitioner is versatile and in his daily work has to assume leadership in the sick room and direct affairs. Naturally, when in trouble, the physician is one of the first to be called upon. Furthermore, when a physician calls upon other members of the community for aid, it is always met with hearty approval, for they know his motives are meant for someone else's welfare. On one occasion, I was called to a place where a man was entombed in a well; he was down 28 feet, and to save his life required digging another well parallel to the one he was in down to the level where he could be extricated. It is a pleasure to recall how everyone in the community responded to every request made, both in labor and material, and after 24 hours of diligent digging we got him out none the worse for his harrowing experience.

On several occasions, I have had to organize searching parties for people lost in the woods. On these occasions, no time is to be lost. One evening it was reported that an old gentleman had failed to return from a berrying expedition. If you will visualize a terrain as far as from here to Janesville with not more than half a dozen homes located in various directions, it will give you a good idea of our problem. We organized the hunting party, and by eleven o'clock that night, two of the youngest members of the party found him. It was a marvelous feat, for

often it requires a crew as large as 500 men to locate those lost people.

Teaching the Boy Scouts and other organizations first aid does them a good turn and redounds to the honor of our profession. A number of mayors in Wisconsin are physicians and always in the State Legislature there are one or two physicians.

Sometimes you will be called into disagreeable situations in following this line of duty. On one occasion, a lady asked me if I would speak to her husband about his drinking. She stated that he was not providing enough for them to eat and that he had steady work and such a deplorable condition was entirely unnecessary. I informed her that I would, provided that I could talk to him in front of her and the children. This plan was agreeable than that evening I called his attention to the fact that he had a good wife and family and through his selfishness, they were not getting even sufficient food and that if he did not take care of his family, I would see to it that the great big State of Wisconsin would make him do it. His reformation, although entirely from fear, was marvelous.

Our position in a community is made more tenable by accepting, rather than shirking, these responsibilities. The reason we do shirk them is due to the inferiority complex latent in almost everyone.

HOME REMEDIES

Nearly all patients have made their own diagnosis and have instituted a line of treatment before they call a physician. While it is our duty to overrule and set aside much that has been done, since they are employing us for our specialized skill yet it is better done tactfully. Many mothers ascribed their child's illness to intestinal worms. Rather than take sharp issue with them, it is better to suggest a vermifuge with instructions for a close observation of the stools, for often worms are passed and had the physician denied their existence or their etiological importance, he is placed in an embarrassing position. Furthermore, their home remedies are often effective. To cure chilblains, the lumberjack would prepare a bed of red coals in the old camp stove, draw them well forward, and hold his foot as near to them as possible. This was using the infra-red heat long before it was accepted as proper by the American Medical Association Council on Physiotherapy.

Freezing has always been treated by putting the frozen hand or foot in snow. We have all had experience with those cases, and I have never heard of a badly frozen hand or foot treated in that way that was not followed by more or less gangrene. On two occasions I have heard of lumbermen on such occasions placing the feet in cold kerosene and that restoration without gangrene followed. I trust that some of us may try out that method sometime.

CLASSIFICATION OF PATIENTS

In every community there are many classes of patients. For a simple classification, three divisions will suffice.

First comes the patient who is really ill. This group needs no discussion as your work here and the chief aim of your life is to relieve their sufferings and prolong their lives.

The second class are those who are ill but claim they do not believe in doctors. When called you are greeted with the statement that he does not believe in doctors and their physical examinations amount to nothing, and, as likely as not, they will throw your medicine out of the window. He knows more about his insides than you do. To successfully proceed with patients of this class requires that we do not attempt a rough comeback. There is an element of truth in what he says. There is an old saying that a man at forty is a fool or his own physician. The first time we heard that in class one of the boys remarked that he hoped there would be fools enough left to go around when he got into practice. The fact is that at forty men know what they tolerate best in diet, exercise, and their reactions to all situations in life. It is best to treat this patient from his own viewpoint. Compliment him on his virility. State your diagnosis in as scientific language as possible, for there is no man or woman on earth but wants a good long name for their ailments! Leave him a prescription and you will get along with him all right.

And we must thank this class of patients for calling our attention to the fact that the

patient invariably looks *at* the physician. We have heard before that the cat looks at the canary. Some in this class are in open rebellion and show a lack of confidence. Prof. Jastrow of this University published an article a few years ago in the Journal of the American Medical Association telling us in rather plain language what psychologists think of physicians. He called attention to the fact that medicine, like psychology, has to offer but a few generalities and that anything like an ultimate knowledge is as yet unknown. And Dr. Howe of Tavistock, England, in his book on Motives and Mechanisms of the Mind deals with the same situation. He calls attention to the fact that in this class belongs the great group of people who are always thinking to the left, such as Socialists and supporters of all new systems, quack or otherwise. And immediately after accomplishing their purpose, they again turn to the left.

The opposite view is taken by the majority of patients, viz., that their physician is the master of the situation. He is the Father or Chief who will rescue them from their peril! To them we are endowed with almost supernatural knowledge and power, and this frame of mind puts the question of leadership squarely up to us, and we must fail not on our peril! If the diagnosis or treatment is beyond us, counsel must be called.

To the third class belong those who think they are going to die forthwith if not sooner. To this class belong the maniac depressive, especially when in the depressive stage. Here, too, you will find the adult who in his youth was a spoiled child, and every spoiled child later in life makes a spoiled home or one that at least has to endure hours of unnecessary unhappiness. To this class belong the cancer phobia and hypochondriacs. Here too, we find an enormous army of people who get behind a physical disability to avoid accepting their responsibilities in life, and will let their wives take in washing or keep boarders while they parade their symptoms of ill health. The one common trait is that they do not want to be well for that to them means work and responsibilities; and if by chance they fail in carrying conviction with one ailment, they quickly change to something else. They are the type that constantly change their doctors going from one to another and in the meantime consulting the cultist for good measure. They are a real problem, and if ever we have socialized medicine, and the State of Wisconsin has to take the responsibilities of their care, God pity the State. I do not mention this class of patients to condemn them, for they are sick mentally, and it is one of our problems to pull them out of their mire holes of self-pity and uselessness wherever that is possible. I will not discuss the treatment, but will leave that to abler men.

DIAGNOSIS

A great care in diagnosis is important. You have doubtless heard that so much from the faculty that you tire of listening to it. An interesting story came to our medical society from one of our Southern conferees. It seems that soon after locating, he met a native coming down the street, and, during the conversation, the man raised his trouser leg and showed a skin lesion and said, "What is that, Doctor?" The doctor looked carefully and noted a densely erythematous area spreading in a circular formation and said, "Why, that is erysipelas." The native replied, "Ery, the devil. That is a bee sting."

An interesting problem came to my attention when a deafmute who could not read or write, and who had come in twelve miles to my office suffering from a blow on the abdomen from the handle of a handcar. By pantomime I told him he would have to go to the hospital. He made me understand that he would do that, but he had his dog with him and it would be necessary for him to take the dog home before he could go. That required another day, but the next day he returned and went to the hospital where on operation it was found that he had a ruptured stomach. He made an uneventful recovery, and while in the hospital, went to some pains to explain how the accident happened. He drew a picture of the railroad track and the grass along the right of way and the handcar and everything. The practice of medicine is full of unusual and interesting situations.

The most valuable service of a general practitioner is the service he is able to ren-

der to children. In the beginning of this century, rickets was rampant and the use of feeding formula had only started. We found many children 18 months old unable to walk and immediately made it a policy when called to any home to treat any member of the family, if there were a baby in the home, to see that it was getting the proper care, and it was surprising the number one would find that needed a change of diet or cod liver oil. In my present location, I found every baby, not breast fed, had been fed on condensed milk and every child so fed had rickets to a greater or less extent, and every child with one exception had had one or more convulsions during their first two years of life.

During the last fifteen years, I have set aside every Thursday forenoon for a baby clinic where their weight and feeding problems are studied. The result has been almost a complete eradication of rickets and convulsions and no ill-nursed children. Mothers living too far away to be able to attend regularly send in the weights by postal card. I keep a card index, and can often help them from the records. As valuable a feature as any of a plan of this sort is that it serves to emphasize the value of proper nutrition amongst the mothers. They discuss these questions amongst themselves and a mother with a poorly nourished baby will see the importance of proper feeding and will not permit her child to suffer by comparison.

We should be more than proud of the contribution the University of Wisconsin has made to furnishing irradiated foods to American children. Just as Dr. Babcock's test was one of the greatest and most valuable assets to agriculture during the last century, the contribution to human welfare by Professor Steenbock has been the most outstanding made in this century.

To the younger practitioners in any community will fall the bulk of pediatric work. When the father is sick, the older, established physician is called for he is the bread winner and the anxiety is great; but for the children, the younger doctor will do, and it is really through pediatrics that the younger men establish their practice.

The work you have done in the department of pediatrics will be your greatest asset during your first years.

IMMUNIZATION

By cooperation with the State Board of Health, the county health committee, the county nurse, and local school or town units, it is now possible to carry out a comprehensive immunization program that would be impossible by any individual effort. The State Board of Health, through its bulletins, sells the idea and has made it possible to obtain the materials at wholesale price.

The County Health Committee, through the county boards, provide the funds for the vaccine and toxoid. The county nurse arranges the schedule, provides for the consent cards, and assists in the administration. The local school or town board or Parent-Teachers Association pays the physician for the administration. In Bayfield County more than 90% of the school children have been immunized against smallpox and diphtheria, a record of which we are proud. A reduction in death rate from diphtheria from 429 in 1910 to 18 in 1933 is so wonderful that we must all be grateful for so valuable a weapon placed in our hands.

Scarlet fever still remains the gangster of contagious diseases. The combined efforts of all agencies have failed to prevent its spread. Regularly in November it reaches its peak. This must be interpreted to mean that the sporadic cases occurring during the summer vacation return to school with enough latent infection to cause the rapid spread to the reassembled children so that the peak of the epidemic is reached by November. This year is no exception as witness the recent epidemic in this city. Neither quarantine nor fumigation has served to check its potent power of spreading. This fact leads us to consider the value of these two measures. Fumigation for years was carried out thoroughly with absolutely no result in controlling epidemics of contagious diseases. For many years, we, who were on the firing line, realized the futility of the procedure. It savored of the old practice of burning incense to an angry diety. It was

a great hardship to the afflicted family. Burning sulphur was bad enough but formaldehide vapor was worse. The entire family had to seek shelter with a neighbor for a day and a night and on returning had to endure those irritating fumes for hours. The present system of destroying such articles as cannot be disinfected and a thorough cleansing is as potent and far more commendable.

Now arises the question of quarantine. I raise the question because it will be settled by you. Does it pay? Bear in mind that this is not an issue between the State Board of Health and the medical profession and public, for the Board can use only the weapons that we place in their hands. It is conceded that the patient with the disease is the source of the contagion, and they are never free from what might be called the carrier stage before they are released, and time after time we see a fresh outbreak of scarlet fever following the return to school of those recently released. The present quarantine regulations are a great hardship in rural communities. All who handle dairy products must be domiciled away from home, or at least in separate quarters and in midwinter, that is not easy. Some plan of pasteurizing should make this hardship unnecessary. Up to this time, smallpox, typhoid fever, and diphtheria have been reduced to the minimum. Tuberculosis and scarlet fever will be your job to eradicate, and I feel sure you will do it.

STATE BOARD OF HEALTH

The State Board of Health has been a potent factor in contributing to the health and living conditions, and has made the work of the general practitioner much easier. We older men well remember when we had to stain slides for tubercule bacilli and the Klebs-Löffler bacilli, and it might be of interest to note that in making a culture from the throat in diphtheria cases that we would inoculate a tube and carry it in our upper vest pocket a day, for we had no incubators for that work but our own body heat served the purpose quite well.

The general practitioner has been relieved of all of that time-consuming work, and not only are slides examined but blood tests and biopsies as well.

GOITER

To the general practitioner falls the problem of goiter. Fifteen years ago the incidence of goiter in our school children was from 60% to 80%. Many adults suffered so much from adenomatous and exophthalmic goiter that operative treatment was necessary. By the use of sodium iodide in prenatal care, iodized salt in early childhood, and iodine tablets during the school year for all school children, we have reduced goiter to less than 5%. To the State of Michigan belongs much credit for paving the way for, as we might say, the wholesale or public way of treating goiter. Michigan furnished the first comprehensive report on what could be done in this way. In Wisconsin, Dr. Arnold Jackson is the leader in goiter eradication; and if the profession of the state will cooperate with him, goiter will soon be reduced to a minimum.

THE PHYSICIAN AND COMMUNITY

Your attention so far has been called to the part the general practitioner plays in the welfare of children. He also plays an important part in the welfare of one class of adults. It is he who first notices the mental deteriorations, and it is not enough that he be able to diagnose a well developed case of dementia praecox, but he must recognize it many months before it is fully developed if he is to be of real value to his patient. He must note the early changed mental trends of all of his clientele, especially should he notice changes in their moral life. A woman who has always looked after the welfare of her children who begins to show an indifference to their interests will generally show insanity in about a year.

Lues is responsible for an enormous amount of mental deterioration. It may not go on to a well defined paresis but will be made manifest by signs of mental decay. Mental cases are the most tragic of all, and it is possible for the general practitioner to lessen their incidence, or at least make provision for their care before some greater tragedy occurs. These unfortunate people are a real problem for the general practitioner for they come under his observation first, and when the deviations from normal

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are not marked. In a neighboring town a few years ago, a man killed his wife, four children, and himself. It had been noticed for some time that his mental processes were not just right, but no one had the temerity to place him in an institution.

I recall a distressing tragedy in Oregon, Wisconsin, when I was a student here. It was in summer one evening that I noticed an old man driving aimlessly down the street, and his horse was well fagged, and the driver was apparently bewildered. Eventually he drove to the depot, then straight down the Northwestern track. In less than a quarter of a mile his horse fell into a bridge and was hopelessly entangled. At that moment he heard a train coming and ran down the track signalling them to stop. He stood too near the track and was killed. The train ran over the horse, but by some miracle escaped derailment. This old man had doubtlessly been out of his head and lost all day. Every practitioner sees many such cases and yet neither the profession nor the laity is alert enough in the care of them. It is estimated that ten thousand people disapper yearly in New York City and are never heard from again.

One evening a young man came into my office stating he was sick, but could not give a history pointing to anything definite. Physical examination showed nothing wrong, but I had a hunch that mentally he was perhaps a little bit off. He was a "shacker," and they are notoriously prone to go insane. He lived eleven miles back in the woods, so I suggested that he stay in town over night, and I would see him again in the morning. He said no, if there was nothing wrong with him, he would return home and could not be persuaded to stay. At 5 o'clock the next morning our marshal called me and said he had a man in his office who wanted to see me. It was the patient of the previous evening. He had wandered around all night, but still had good possession of his mental faculties. Realizing that there must be some mental aberration, under the pretext of finding something seriously wrong with him, I obtained his consent to go to the hospital at Superior. I phoned the authorities there to meet him on the morning train, and instructed the marshal to place him in care of the trainmen until he reached Superior. The marshal failed to mention that to the trainmen, and on entering the train he immediately attacked a woman passenger. He was, of course, badly manhandled by the train crew, but eventually was properly placed in the hands of the authorities. The unfortunate sequel to this case was that his chickens and stock were left penned up and without food or water for almost a week. He lived in an isolated location and none of us had thought of such a horrible occurrence. I mention these things because naturally you never see them in a medical school.

The greatest problem in these mental cases is in determining when to commit them to an asylum. The physician should never sign the petition, and in many cases should refrain from being one of the examining physicians before the county judge. For in a number of cases, many of the patient's friends will make it very uncomfortable and will ascribe all sorts of ulterior motives for the course pursued.

ORGANIZED MEDICINE

There are about three thousand physicians in the practice of medicine in Wisconsin at the present time, and it is wise for us to think not only of our individual problems, but also of our problems as a whole. The value of our time spent in preparation plus the cost of our education amounts to at least ten thousand dollars each. This represents an investment of about thirty million dollars. To conserve our best interests, organization is necessary. Individual thought or effort would be futile; hence, the necessity of the State Medical Society of Wisconsin. It is the duty of every practitioner to become a member of the organization. The county society is the essence of the organization, for here each member can air his views, discuss our problems, and formulate policies and instruct their representatives in the house of delegates at our annual meetings. Organization is not primarily for the purpose of being able to present a united front in legislative matters, or force an issue with any other organization or our employers, but it offers our only opportunity for mutual study of our scientific and social problems. To

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enumerate the benefits coming from our organization would be out of place at this time. It is the duty of every member to study that problem himself. The greatest benefit comes from the natural check it puts on vicious and deteriorating propensities that come to the surface and the promulgations of all that is worth while to ourselves and our clientele. It has been well stated by Dr. Cheever of Boston that organized medicine has no vested rights that are incompatible with public interest.

No organization that does not serve a useful purpose can long endure, and our organization has scores of men giving more than freely of their time and effort to solve the many baffling problems that are constantly requiring proper solution and any physician who does not join and work in his county society is "snitching" on the other fellows.

CHARITY

The three thousand physicians in Wisconsin each contribute gratuitously to the people of the state more than two thousand dollars worth of services annually. This amounts to more than six million a year, and is greater than all the contributions to community chests and such organizations combined.

To be sure, it is not all graciously nor wisely contributed, but it is a potent part in the social welfare of our citizens. It now appears as a rich plum for certain leaders in our social structure, who combining with social workers, politicians, and many others who believe that the "deficiencies of today will be made up by the luxuries of tomorrow," now propose a radical change in the distribution of medical services. This movement is coming not from the medical profession, labor nor from any disinterested class of American citizens, but is coming from a certain group of rich men who see a chance of control of an enormous service that they can use to advantage and from a group of people who would very well like to be able to establish bureaus, gain control of our services, and earn their living by the sweat of the doctor's brow.

Our profession is offering no apologies for the practice of medicine as it exists today. It is true that it is not perfect, and changes will be made, but they will be made by the profession, and for the good of all and not to the advantages of those now promulgating the idea of a change. These and many other problems will be for you to solve. You will many times find the going hard, and more than once, you will wish you had never seen the inside of a medical school, but you will find the practice of medicine a great adventure. I wish you all, all possible success.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED FOR REVIEW

Pediatric Nursing. By John Zahorsky, A.B., M.D. professor of pediatrics, and director of the department of pediatrics, St. Louis University School of Medicine; pediatrician in chief to the St. Mary's group of hospitals. Assisted by Beryl E. Hamilton, R.N., St. Luke's Hospital, St. Louis, Mo. C. V. Mosby Co., St. Louis, Mo. Price $3.00.

Roentgenographic Technique. By Darmon A. Rhinehart, M.D. Professor of roentgenology and applied anatomy, School of Medicine, University of Arkansas. Second edition, thoroughly revised. Price $5.50. Lea & Febiger, Philadelphia.

The Psychology of Dealing with People. By Wendell White, Ph.D. Assistant professor in psychology, University of Minnesota. The Macmillan Company, 60 Fifth Ave., New York, N.Y. Price $2.50.

Parenteral Therapy. By Walter F. Dutton, M.D. and George B. Lake, M.D. Charles C. Thomas, publishers, Springfield, Ill.

Surgical Clinic of North America. (Chicago number—February 1936). Issued serially, one number every other month. Paper $12.00. Cloth $16.00 net. W. B. Saunders Co., Philadelphia.

Allergy of the Nose and Paranasal Sinuses. By French K. Hansel, M.D., assistant professor of clinical otolaryngology, Washington University School of Medicine. Price $10.00. C. V. Mosby Company, St. Louis, Mo.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

Recent Advances in Medicine. By G. E. Beaumont, M. A., physician with charge of out-patients, Middlesex Hospital; physician to the hospital for

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★ *Laryngoscope 1935 XLV, 149-154*
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N. Y. State Jour. Med. 1935, 35—No. 11,590

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consumption and diseases of the chest, Brompton, and E. C. Dodds, M. V. O., Courtauld professor of Biochemistry in the University of London; Director of Courtauld Institute of Biochemistry. Middlesex Hospital. Eighth edition. Price $5.00 net. P. Blakiston's Son & Co., Inc., 1012 Walnut St., Philadelphia, Pa.

This volume constitutes the 8th edition of a text which has appeared over the past twelve years. The subject matter is very interest.ngly presented, and covers a wide field in internal medicine. In general the subject matter corresponds to the Year Books of American origin, but there is a much greater effort at digestion and assimilation of the materials in contrast to the abstract form utilized in the above mentioned Year Books.

Obviously a review of such a text is impossible, but as a high-grade presentation of the recent proggress in medicine according to the lights of the authors, this volume deserves a place in every medical library. W.M.S.

Diseases of the Nervous System. By Jelliffe and White—published by Lea & Febiger—Sixth Edition.

The appearance of the 6th edition of this text speaks for its popularity. It has been completely revised, according to the publishers, and a page for page comparison with the previous addition confirms this, but a perusal of the actual contents shows for the most part little change in the context. The chapter on Vegetative Neurology has been brought up to date and includes much (but not all) of the recent studies on the hypothalamic and higher visceral centers. There is no text-book in English that handles this difficult section of neurology as completely and as adequately. The chapter on endocrinology is somewhat disappointing for while it contains reference to the newer concepts, there is little change in the descriptive material. Perhaps the authors have felt that too much confusion still exists in this field to warrant any radical departure from old theories of glandular-visceral activity. Organic neurology is treated in great detail with abundant reference to the literature. Ninety-one pages on neurosyphilis attests to the thoroughness of these authors. Their excellent chapter on cerebral apoplexias overlooks the fairly common subarachnoid hemorrhage. It is a matter of regret that while new illustrations have been added, there are many musty photographs that should be replaced with modern ones. Reproductions of photomicrographs that should be replaced with modern ones. Reproductions of photomicrographs should be improved.

Throughout, this book is pervaded by a psychoanalytic flavor, in parts almost overwhelming as is evidenced by the following passage from the discussion on the arthropathies, "Clinical experience has seemed to indicate to the authors of this book how the fundamental affective trends finding symbolic expression, at the psychological level, in terms of the unconscious criminal endeavoring to escape from the reality of his desires, have tied up the joints of various individuals in incapacitating arthritic involvements. How the unconscious, grasping, miserly individual may tie up the hands; belligerent fist-pounding sadisms may lock up his wrists, elbows and shoulders; the kicking, stamping hatreds involved the knees and hip, etc. It is here considered absolutely imperative that such factors be evaluated in the study of some of the arthritides." This passage is followed by the warning to the reader not to be too naive in his interpretation of "these conceptions". At the risk of being so labeled, the reviewer calls attention to the author's concept of the etiology of unilateral pains and sensory symptoms in Migraine: "In a *few* cases thus far personally analyzed, left-sided symptoms have symbolized unconscious Eros conflicts in a masochistic setting; right-handed ones hostility in a sadistic one". (In the 5th edition "nutritive" appears in place of "hostility".) While "pains in the back of the head have been also frequently associated with repressed hate complexes as have been severe pains in the jaw". Perhaps in a more enlightened (and psychoanalytic) future these ideas may not seem so strange.

There are better textbooks for students, but for the student and practitioner of neurology, this is indispensable as a reference work. M.G.M.

Diseases of the Nose and Throat. By Charles J. Imperatori, M.D., professor of clinical otolaryngology, New York Postgraduate Medical School, Columbia University, New York, and Herman J. Burman, M.D., instructor of clinical otolaryngology, New York Postgraduate Medical School, Columbia University, New York. J. B. Lippincott Co., Philadelphia.

This treatise on nose and throat conditions and diseases fulfills its objective by the authors in the manner of its approach and handling of subject matter in a very direct and clear-cut manner. It is quite didactic where this is practicable. The anatomy, symptoms, diagnosis, and treatment are all to the point and with only a minimum amount of theory. I feel it one of the most complete textbooks on the larynx and bronchial tree, their study and treatment, in circulation today. H.A.

Clinical Psychiatry for Students and Practitioners. By Edward A. Strecker, M.D. and Franklin G. Ebaugh, M.D.—Fourth Edition, published by P. Blakiston's Son & Company, Inc. 1935.

This book has much to recommend it to the student and the practitioner. The general arrangement of the various mental disorders under generalized headings is excellent. The charts and illustrations are of a helpful nature. The method of psychiatric examination appears to leave something to be desired, insomuch as there is a certain apparent lack of continuity in some of the subjects. However, if this method is combined with others, it would be entirely satisfactory. A.C.W.

Gynecological and Obstetrical Tuberculosis. By Edwin M. Jameson, B. S., M. D., fellow of Trudeau Foundation, attending surgeon, Saranac Lake General Hospital and Reception Hospital. Illustrated. Lea & Febiger, Philadelphia.

PHYSICIANS' EXCHANGE

Advertisements for this column must be received by the 25th of the month preceding month of issue. A charge is made of $2.00 for the first appearance of copy occupying 1 inch or less of space and $1.00 for each succeeding insertion of the same copy. Kindly accompany copy with remittance to cover number of insertions desired. Advertisements from members of the State Medical Society will be accepted without charge. Such copy will be taken out after its second publication unless otherwise requested. Where numbers follow advertisements replies should be addressed care Wisconsin Medical Journal.

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Doctor Jameson has written a work which is based upon the observations of a large clinical experience and a detailed study of an unusual autopsy material; the combination of both has resulted in the edition of a work which stands second to none. The treatment of gynecological and obstetrical tuberculosis up to the present time has been based upon a hodgepodge of clinical observation which for the most part has led to illogical therapeutics. The too frequent interference of patients with obstetrical tuberculosis has been emphasized by the author and is commendable. The volume also points out the value of x-ray in pelvic tuberculosis which is an adjunct to surgery; the reviewer feels that this treatment is important and has had splendid results with it. The author has reviewed the whole field of obstetrical and gynecological tuberculosis in a splendid way and has established a noteworthy bibliography. The organization of the subject matter in this book is excellent.

This book can be recommended to every practitioner of obstetrics and gynecology without any hesitation and should be a part of one's library. R.E.C.

Personal and Community Health. By Claire E. Turner, M. A., Dr. P. H., professor of biology and public health in the Massachusetts Institute of Technology. 4th edition. Price $3.00. C. V. Mosby Co., St. Louis.

This treatise of less than 700 pages covers practically every phase of the subjects indicated by the title. It is tersely written. It contains most of the essential subject matter and is readable and understandable for the college student. The first twenty chapters, some three hundred pages, are devoted to the health of the individual. This subject is discussed in chapters entitled Nutrition, Digestion, Oral Hygiene, the Hygiene of Reproduction, Heredity and Health.

The second part covering some 300 pages is devoted to the health of the community. The first chapter "Science of Disease Prevention" introduces microbiology and its applications. In the second chapter "Communicable Diseases" are discussed with special emphasis on insect vectors. The chapter on the "Three Great Plagues", syphilis, tuberculosis and common cold is replete with charts and the text is instructive. Food, water and waste receive adequate attention, and ventilation is considered in some detail. Appendix "A" consists of outlines covering more than sixty communicable diseases discussed under nine headings: recognition, etiology, source of infection, mode of transmission, incubation period, period of communicability, susceptibility and immunity, prevalence, and methods of control. Appendix "B" deals with disinfection and disinfectants.

The book is recommended as a text for college and university students. W.D.S.

The 1935 Year Book of General Medicine. Edited by: George F. Dick, M.D., Professor of Medicine, University of Chicago; Attending Physician, Billings Memorial Hospital. Lawrason Brown, M.D., Chairman of the Medical Board, Trudeau Sanatorium, Saranac Lake, New York. George R. Minot, M.D., S.D., F.R.C.P. (Hon.) Edin. Professor of Medicine, Harvard University; Director, Thorndike Memorial Laboratory; Visiting Physician, Boston City Hospital. William B. Castle, M.D., A.M., Associate Professor of Medicine, Harvard University; Associate Director, Thorndike Memorial Laboratory; Junior Visiting Physician, Boston City Hospital. William D. Stroud, M.D., Professor of Cardiology. Graduate School of Medicine, University of Pennsylvania. George B. Eusterman, MM.D., Professor of Medicine, University of Minnesota (Mayo Foundation); Head of Section in Medicine and Chief of Gastro-Enteriologic Clinic, Mayo Clinic.

There is little to be said in regard to the Year Book that has not been stated in reviews of the same in previous years. As a summary of the outstanding representative periodicals of the past year, it is unexcelled. Except for what seems to be a tendency (in some instances) for the editor to stress articles which support his own ideas, the Year Book offers a broad and adequate review of recent literature. Reading is facilitated by pointed and adequate editorial footnotes. Because of its handy source of information, conciseness, and scope of material, the busy practitioner will find the book a valuable aid. E.M.B.

Prescription Writing and Formulary. By Charles Solomon, M. D., assistant clinical professor of medicine, Long Island College of Medicine. J. B. Lippincott Co., Philadelphia.

A detailed discussion of the history, theory, and the practice of prescription writing, posology, materia medica, Latin declensions, absorption and excretion of drugs, and methods of drug administration occupy the first half of the volume. Attention is directed to the economic gain of the patient attained by simplicity in prescription writing and the use of scientific rather than proprietary nomenclature. The author makes a strong plea for the retention of Latin forms and gives as the most important reasons "the greater respect shown by the patient and his family for the learning of the prescriber" and "a good part of the mysticism which should legitimately go with the prescription is lost, when a language familiar to the patient is used."

The latter half of the book is comprised of prescriptions in Latin and English for the majority of the drugs and compounds in common use, classified according to their pharmacological action. While the author stresses the fact that this list is only intended to serve in an illustrative capacity, an extensive index, classified according to symptoms and diseases, is appended, thus furnishing the tools for the too common card-index type of drug therapy. The author circumvents the difficulty of Latinizing the newer biologicals, experienced by many others, by writing these prescriptions in English with Latin subscriptions. Several unfortunate pharmacological inaccuracies have been included, such as classifying

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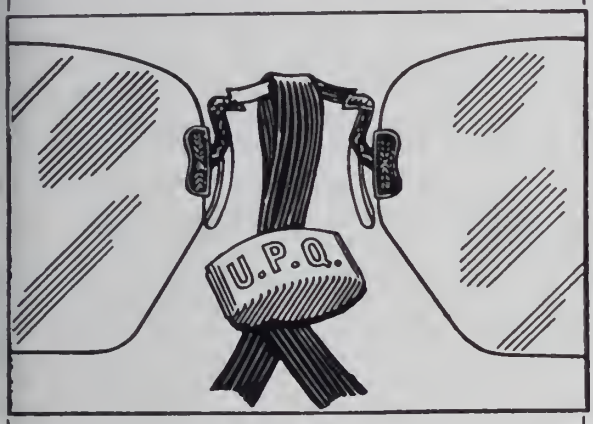

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ergotamine as a sympathetic stimulant and quinidine as a heart stimulant, etc.

The volume fulfills in a considerable measure the purpose for which it was intended, although it offers nothing of an original nature. M.H.S.

Russell A. Hibbs, Pioneer in Orthopedic Surgery, 1869-1932. By George Goodwin, Columbia University Press, New York, New York.

In this book the author has recorded the life history of Russell A. Hibbs, surgeon-in-chief of the New York Orthopedic Hospital from 1900 until the time of his death in 1932, and one of this country's foremost orthopedic surgeons.

For those interested in this branch of surgery or in a well-written biography of a great man, the book is highly recommended.

His contributions to surgery are enumerated. Four original papers are included. The technique of his surgical procedures is described and illustrated.

A bibliography of 49 articles by Hibbs is appended. R.E.B.

The Human Foot. By Dudley J. Morton, associate professor of anatomy, College of Physicians and Surgeons, Columbia University. Price $3.00. Columbia University Press, New York, N. Y.

Dr. Morton has written a book of value to anatomists, anthropologists, physiologists and clinicians. Part One is titled, "The Evolutionary Development of the Human Foot"; Part Two, "The Physiology of the Human Foot"; Part Three, "The Functional Disorders". These headings adequately indicate the wide scope of the work. In it are seen the results of his experience in the hospital, in the experimental laboratory, in the anatomical laboratory and in the American Museum of Natural History. It is very readable and highly instructive. W.E.S.

The National Formulary. Sixth edition. Prepared by the Committee on National Formulary by authority of the American Pharmaceutical Association. Published by the American Pharmaceutical Association, Washington, D. C.

The sixth edition of the National Formulary, revised under the supervision of the Council of the American Pharmaceutical Association, follows the same general form of previous revisions.

A trend toward modernization of therapy is indicated by the fact that the number of preparations deleted exceeds, by a considerable margin, new additions. The tendency has been to include a more varied list of preparations of valuable drugs to the exclusion of many unused vehicles, etc. As its name implies, this volume deals primarily with the knowledge essential to the pharmacist in the compounding of prescriptions. It includes, however, a wealth of information for the physician who is interested in the nicety of prescription writing. Many valuable preparations are included which, because of lack of space or little general usage, have been omitted from the U. S. Pharmacopoeia XI. M. H. S.

Obstetrical Practice. By Alfred C. Beck, M. D., professor of obstetrics and gynecology, Long Island College of Medicine; obstetrician and gynecologist-in-chief, Long Island College Hospital, Brookyn. Price $7.00. The Williams & Wilkins Co., Baltimore.

This book was written with the purpose of presenting the essentials of obstetrical practice to undergraduate students and young practitioners. It does present the essentials with very little in addition. It is well illustrated. The mechanism of labor is presented with great care and much detail aided by the many original drawings of the author. Detailed attention is given also to the section on medical and surgical complications in obstetrics. The references given in the test are inclusive. M. J. T.

The Patient and the Weather. By William F. Petersen, M. D., Volume I. Edwards Brothers, Inc., Ann Arbor, Michigan.

This book, which carries numerous maps and charts carefully placed as to the related text, is well written and interestingly arranged. It deals with a rather neglected subject, that of the association of various diseases and pathological conditions with the atmospheric changes in various areas in the United States. The author carries us back to Hippocrates and through the greater part of this volume, which is the first of a series, illustrates the truth of the first three Hippocratic postulates which state that the knowledge of meteorology is essential for an understanding of medicine, that the race is differentiated by the environment, and that the growing embryo may be altered. The first two chapters, which are in reality an introduction to the whole series, we find particularly interesting dealing as they do with the earliest schools of medicine and their problems as seen in the light of present-day medicine. In the second chapter we find free quotations from the Hippocratic texts with interesting discussions of these quotations. F. L. W.

Fundamentals of Biochemistry in Relation to Human Physiology. By T. R. Parsons, B. Sc. (Lond.), M. A. (Cantab.). Fifth edition, revised. William Wood and Co., Baltimore, Md. Price $3.00.

This little volume is a rare combination of authority and simplicity. It is designed and has been notably successful for the teaching of students who do not pretend to a very extensive background of pure chemistry and physics, hut who are presumably interested in obtaining a broad general view of the important chemical aspects of the life processes. As such, many medical students and practicing physicians can find it useful in bringing together the scattered views of hiochemistry which may be all they have had time to acquire, and to keep them abreast with the most important advances in the field since they were introduced to the subject. The popularity of the volume has permitted frequent new editions, each of which has incorporated significant advances. The present one, for example, includes new material on muscle chemistry and discoveries of

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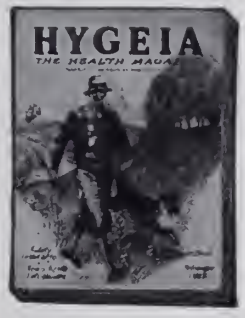

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Lactobacillus Acidophilus and its Therapeutic Application. By L. F. Rettger, Ph. D., professor of bacteriology in Yale University; Maurice N. Levy, M. D., practicing physician, Bridgeport, Connecticut; Louis Weinstein, Ph. D., James E. Weiss, Ph. D., research fellows in Yale University. Price $2.50. Yale University Press, New Haven, Connecticut.

Here is a careful clinical and bacteriologic study of the acidophilus milk treatment of constipation. The authors made an effort to advance no conclusion unjustified by results of their research. They appreciate the complexity of factors involved in the production of "constipation", and allocate their cases carefully after a thorough etiologic consideration of the complaint. There is a meticulous account of their experiments, including bacteriologic methods, many case reports, and a full discussion of the results and conclusions drawn from them. They feel that relief may be afforded a majority of sufferers from simple constipation and constipation accompanied by biliary symptoms by the acidophilus milk treatment. Patients with "mucous colitis" and idiopathic ulcerative colitis may anticipate benefit only so long as the treatment is pursued. Emphasis is placed on the importance of ingestion of massive doses of lactobacillus acidophilus organisms of high viability, with repetition of long courses of treatment interspersed with rest periods. The assumption is that the aciduric organism becomes implanted in the intestinal tract. Although feces cultures indicate the justification of this conclusion, the authors anticipate more work in the identification of the strains recovered. K. L. P.

Glandular Physiology and Therapy. A symposium under the auspices of the Council on Pharmacy and Chemistry of the American Medical Association, 535 N. Dearborn St., Chicago, Ill. Price $2.50.

This volume is a reprinting of the series of articles which appeared in the Journal of the American Medical Association during most of 1935. The thirty-one articles are arranged almost at random. The authorship involves twenty-seven men. The style is, therefore, highly variable. In some cases the articles are written primarily for the guidance of laboratory investigators. In others they are distinctly pointed toward the inquiring clinician. In general the book of 528 pages bears on the side of being too detailed both in text matter and in bibliography. For the worker in this field of endocrinology the book is of considerable interest because it reveals the point of view of these various authors at the time they prepared and edited their manuscripts during 1935. The book is very well indexed and this makes it much more usable than having merely the clippings from the Journal. E. L. S.

Doctor of the North Country. By Earl V. McComb, M.D., Thomas Y. Crowell Co., 393 Fourth Ave., New York, N. Y. Price $2.00.

Dr. Earl Vinton McComb has written a readable book "Doctor of the North Country" by the simple expedient of reciting a series of personal experiences in that region. The human touch is clearly held throughout the recital, which makes no pretext of continuity. The clearcut insight of the general practitioner into psychology, both normal and abnormal, reflects itself at frequent passes, and enlists the comment as to the fundamental soundness of the development of such a knowledge by experience in human contacts.

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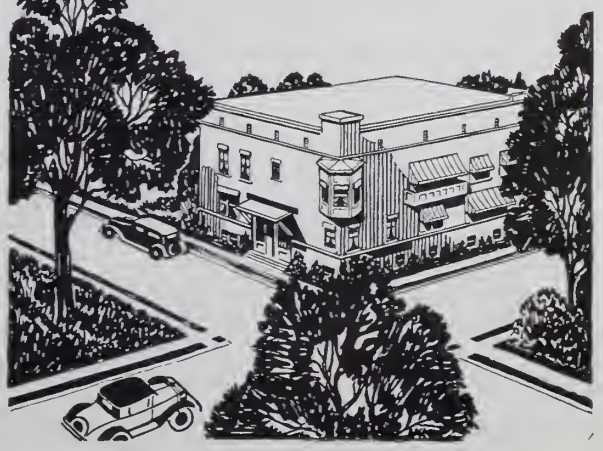

with the well-being of his fellows, and I find my colleagues on the whole self-sacrificing and brave. I am grateful to those circumstances of my childhood, those hours under the buffalo robe, those nights when an excited little boy first held the smoky kerosene lamp while his father sewed up a torn scalp, which led me, better than I knew, towards medicine as a profession. After many years I look back and am glad. For I still believe, as I believed then, that it is the finest profession in the world." W. S. M.

Diseases of Women. By Harry S. Crosen, M. D., professor emeritus of clinical gynecology, Washington University School of Medicine, and Robert James Crossen, M. D., instructor in clinical gynecology and obstetrics, Washington University School of Medicine. Eighth edition, entirely revised and reset. Price $10.00. C. V. Mosby Co., St. Louis, Missouri.

This addition maintains the reputation of the previous editions. The arrangement of the text is an excellent one both from a clinical and pathological standpoint. The laboratory has not been lost sight of in making this work complete. The recent advances in endocrinology have been given their proper place in this text. The illustrations are to be commended. This textbook may be well recommended for both the student and the practitioner. R. E. C.

A Textbook of Surgery. By American authors. Edited by Frederick Christopher, M.D., associate professor of surgery, Northwestern University Medical School. Cloth $10.00 net. W. B. Saunders Company, Philadelphia.

This is undoubtedly one of the best one-volume surgery texts that has ever been published. Each subject is clearly and ably presented by a recognized leader in that field.

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Volume XXXV
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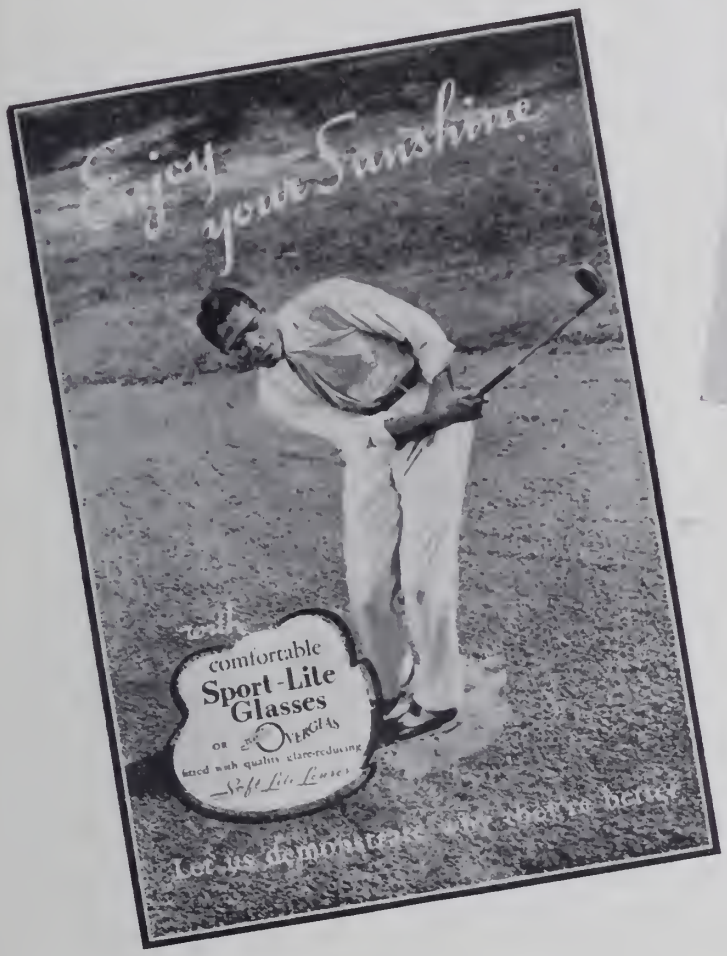

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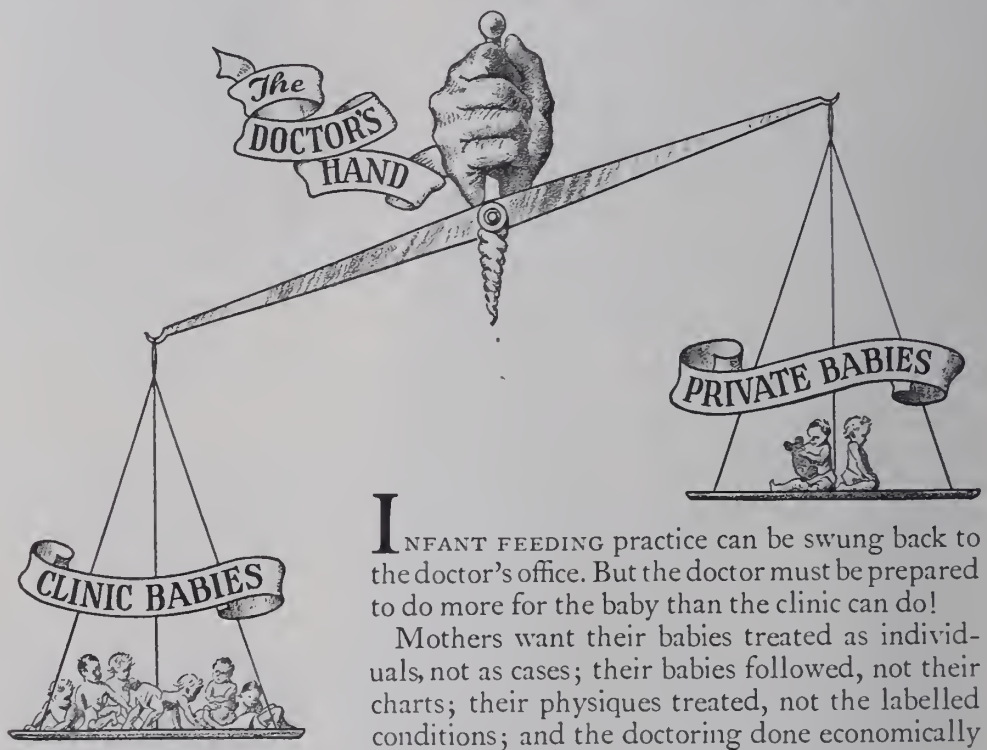

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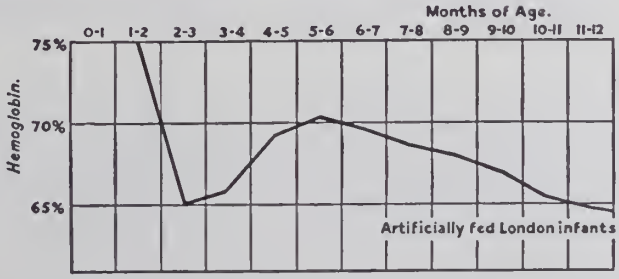

Hemoglobin level in the blood of infants of various ages. Note fall in hemoglobin, which is closely parallel to that of diminishing iron reserve in liver of average infant. Chart adapted from Mackay. It is possible to increase significantly the iron intake of the bottle-fed from birth by feeding Dextri-Maltose With Vitamin B in the milk formula. After the third month Pablum offers substantial amounts of iron for both breast- and bottle-fed babies.

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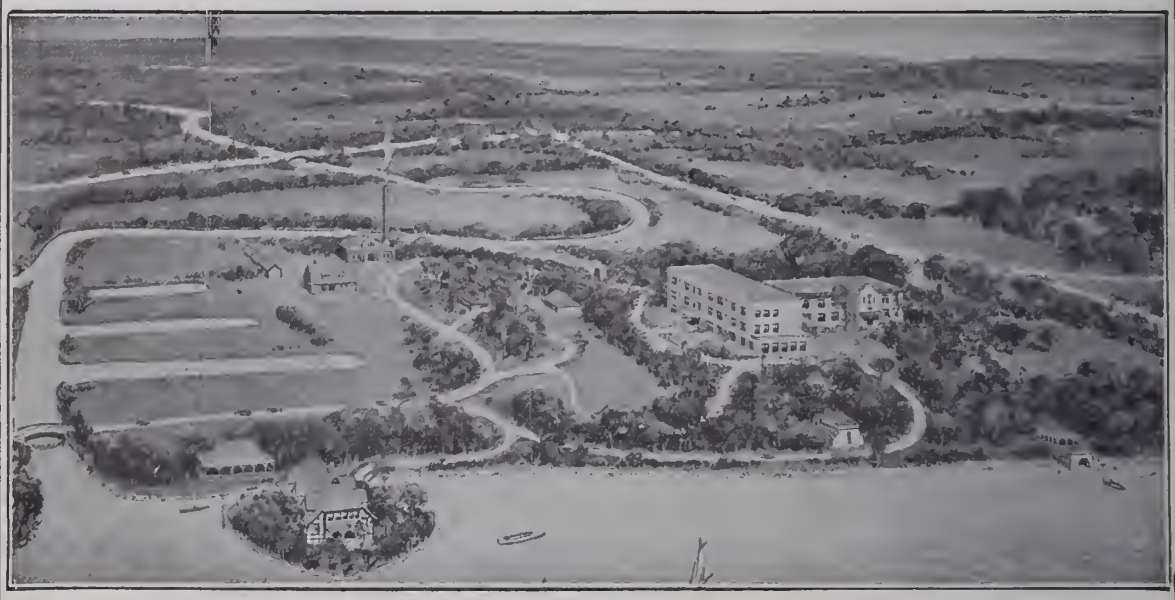

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VOLUME XXXV, NO. 6 Copyright, 1936, by The State Medical Society of Wisconsin JUNE, 1936

Postoperative Neurologic Complications*

By HENRY W. WOLTMAN, M. D.

Section on Neurology, The Mayo Clinic, Rochester, Minnesota

UNDER the heading of postoperative neurologic complications I shall not restrict myself, as it is often insisted should be done, to complications that may be regarded as due to the anesthesia or in some manner to the operation itself, but I shall include the more common neurologic and psychiatric disturbances that occur in patients who are convalescing in the hospital following an operation.

Needless to say, the relatives no longer look on a patient's recovery from an operation as fortuitous; now, a complication of any kind is often laid at the door of the surgeon, however innocent of it he may be.

Let us see what some of these neurologic complications are, how to avoid them, if possible, what factors contribute to their production, and how to treat them. We shall begin with the simplest.

NEURITIS

Injury to the ulnar nerve by the edge of the operating table has almost become a thing of the past, thanks to the exercise of greater care in securing the arms. When it does occur, the patient at once becomes aware of it on recovery from anesthesia, and if maliciously inclined may make plenty of trouble out of an accident so easily avoided. Physiotherapy and time suffice to bring about recovery, which, with a severe injury, may take the better part of two years.

An ulnar neuritis in one or both arms, however, may also appear gradually in the course of convalescence. This is often attributed, erroneously I believe, to some toxic agent. It generally occurs in cases in which patients have lost considerable weight. In some cases it is due to impingement of the nerve between the arm and the bed, particularly when the patient lies for long periods on his back and when the bed is hard; in other cases it is encountered when the patient rests his arms on the unupholstered arms of an ill-fitting chair. These cases of tardily developing neuritis are usually not so severe as those of the first group, nevertheless there is some satisfaction in looking for a traumatic basis and finding it.

The homologue in the lower limbs is neuritis of the peroneal nerve, with the resultant foot drop and occasional numbness of the dorsum of the foot and anterior surface of the leg. In such cases not only pressure on the underlying mattress, but also traction incidental to hyperextension of the knees on a sagging mattress are responsible. Corresponding to armchair ulnar neuritis is crossed-leg, external peroneal neuritis. Deprived of its blanket of fat this nerve becomes exposed in a position of almost certain vulnerability. There was once much interesting speculation as to why the toxins in typhoid fever and puerperal sepsis, for example, should pick out the ulnar and peroneal nerves, and why these nerves should become paralyzed during convalescence. Knowing how reduced in weight these patients may become and bearing in mind their postural habits during convalescence, an appreciation of the traumatic possibilities explains the neuritis. The patient with depression or with exophthalmic goiter has the same type of neuritis because he is in the same situation: there is loss of weight, convalescence is prolonged, and there is pressure on unprotected nerves. The treatment of these peroneal palsies is no different from that of similar ulnar palsies, save that a splint or brace is usually warmly welcomed by the patient.

* Read before the 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, September 18 to 20, 1935.

Brachial neuritis may also occur. In going over such cases, I am struck by three observations: First, that it almost always occurs in women whereas the forementioned types of neuritis usually occur in the less upholstered male; second, that the operation was usually pelvic, and third, that the palsy is usually of the upper plexus type. The secret is not a deep one. The Trendelenburg position and inadequately padded shoulder rests are the answer.

As might be anticipated, latent cervical ribs may come to light on this occasion, partly because they are partners in crime and partly because of the scrutiny directed that way when the complaint is appraised.

Faulty posture of the patient's arms during narcosis, such as placing them under the head, may, by traction and pressure, bring about brachial plexus palsy.

Sometimes the paralysis is hysterical. For example: A woman, aged thirty years, had been examined twelve years before because of a gastric neurosis, eight years later because of a cardiac neurosis, and then because of lumps in her breasts. Immediately following bilateral amputation for chronic mastitis and fibroadenomas, paralysis of the left arm was complained of. The paralysis disappeared in a few minutes on persuasion. Ten months later she refused an attractive position because, much to her disgust, she could not bring herself to appear before an audience.

CRANIAL NERVE PALSIES

The most frequently paralyzed of the cranial nerves is the sixth, which supplies the external rectus muscle of the eye. This palsy has been called attention to more recently as a rare complication of spinal anesthesia. It usually appears seven to ten days after operation and is not permanent. The following case is an example: A man, aged fifty-nine years, was operated on under spinal anesthesia for purulent cholecystitis. Three days after operation, palsy of the right sixth nerve appeared, and eighteen days after operation palsy of the left. Two and a half months later his eyes were normal.

Inflammation has also been suggested as a cause. Patients who have headaches from spinal puncture occasionally have a block that may be demonstrated on jugular compression, as Love observed. Pressure must also be considered among the possibilities. How these palsies are produced is unknown, but they are not limited to spinal anesthesia as the following case will show: A woman, aged forty-eight years, underwent appendectomy and salpingo-oophorectomy under ether anesthesia. Eleven days later the left sixth nerve became paralyzed. Recovery took place in seven days.

Hyslop gives the incidence of ocular palsies following spinal anesthesia as five in 2000 cases. Other cranial nerve palsies, as well as lesions of the spinal nerves, spinal cord, brain, and caudal lesions of one kind or another, have also been observed following spinal anesthesia. They are not necessarily caused by it.

Among cases of cranial nerve palsy such as the following have been observed: A man, aged fifty-five years, who was operated on for purulent appendicitis under gas and ether anesthesia, had phlebitis of the left leg which began on the twenty-sixth postoperative day. He was about to be dismissed when, on the forty-sixth day, he became stricken suddenly with a violent headache and on the following day complete paralysis of the left third nerve appeared. Another patient, a man, aged sixty-three years, underwent block dissection of the right side of the neck under regional anesthesia, because of a lingual epithelioma. The next night he was found to have paralysis of the left arm, and the next day, right optic neuritis and an altitudinal anopsia. He recovered from these. Three years afterwards his wife wrote, "He is dumb and won't talk except when he is angry, then he yells and tries to kill me." A third patient, a woman aged thirty-eight years, had a left tuberculous kidney removed under spinal anesthesia. Later in the day she was found to have a slight right hemiplegia, right hemianesthesia, and paralysis of the left fourth nerve. Four years later she was "still improving."

I cannot be certain as to just what these neurologic lesions were due, and their grouping under the heading of neuritis of the

cranial nerves is convenient rather than accurate.

HEMIPLEGIA

I should now like to discuss a more frequent and serious complication, hemiplegia. In this the sexes are about equally represented, and the patients may range from children to the very aged, the average age at the time of the accident being about fifty years. The illnesses leading to operation are pretty well distributed throughout the fields of general surgery, and the types of anesthesia, whether inhalation, infiltration, or spinal, are equally well represented. Hemiplegia occasionally may be present when the patient awakens, but the average interval between operation and onset of the hemiplegia is about seven days.

I was especially interested to learn, if possible, what might have caused these hemiplegias. It was reasonable to assume that embolism of cardiac origin was the cause in at least a third of the cases. For example: Four days after thyroidectomy, under infiltration anesthesia, for an adenomatous goiter, a woman, aged forty-one years, was sitting in a chair when the left side of her body suddenly became paralyzed. She had mitral endocarditis. Nine months later a second attack of hemiplegia occurred. A second patient, a woman, aged sixty-two years, had an attack of coronary occlusion. Two months later the arteries of her left leg were suddenly occluded, and ten days later the leg was amputated because of gangrene. Three days after amputation, performed under spinal anesthesia, she was suddenly stricken with right hemiplegia and aphasia, and on the fifteenth postoperative day she suddenly died.

Of the patients with postoperative hemiplegia who had a systolic blood pressure of more than 200 mm. of mercury, one was a woman, aged fifty-three years, who had transient left hemiplegia before, and again four days after hysterectomy which was performed under gas and ether anesthesia. Another example was that of a man, aged sixty-six years, who had right hemiplegia on the seventeenth day following cholecystgastrostomy, performed under gas and ether anesthesia for carcinoma of the pancreas. Ten months after this operation he had a second hemiplegic attack.

Since these two patients recovered entirely soon after their hemiplegic attacks it is probable that the attacks were not caused by hemorrhages but by arterial spasms. A third patient with postoperative hemiplegia was a woman, aged seventy-two years, who had had hypertension for more than twenty-two years. On the thirteenth day after hysterectomy and vaginectomy, under spinal anesthesia, left hemiplegia developed which was associated with elevation of both eyes. Thirty-three hours later she died. Necropsy disclosed advanced arteriosclerosis of the cerebral vessels and complete arteriosclerotic occlusion of the right internal carotid artery, with softening of the right half of the brain.

Definite information was obtained in two other cases in which hemiplegia was caused by impeded circulation on the venous side: A man, aged forty-two years, was operated on under spinal anesthesia for a gangrenous appendix. The wound became infected, he had fever, and on the seventh day after operation he complained of headache. On the tenth day clonic convulsions occurred in the right arm; it soon became paralyzed and within an hour and a half the patient died. Necropsy disclosed thrombosis of the superior longitudinal sinus, which was in part of longer duration than his recent illness and in part of recent date. There was recent extension of the thrombosis to the left Rolandic vein. The usual hemorrhagic softening accompanied this process. The other patient, a man, aged forty-two years, had undergone operation for carcinoma of the sigmoid under spinal anesthesia. On the twelfth day he felt entirely well and was sitting in a chair and talking to his brothers. His right hand suddenly began to twitch, and continued to do so. There was gradual extension of this twitching to the entire right side of his body, which became paralyzed on the following day. The patient was still lucid. He died after forty-eight hours. At necropsy the left Rolandic vein was found to be thrombosed.

In other cases the cause of hemiplegia was quite unknown. Doubtless thrombosis

played a part in some of these cases and embolism in others. Guessing, however, does not contribute to our information on the subject so I shall pass on.

Of the series of patients with hemiplegia, a little less than half recovered completely, a third died within thirty-five days, and the remainder had more or less residual disability.

The possibility of fat embolism of the cerebral vessels causing postoperative hemiplegia is, I think, unlikely, since this is more often manifested by increasing somnolence and stupor. Parenthetically I wish to call attention to the finding (by Kernohan) of large amounts of fat in the arteries of the brain following burns of large surfaces, as in scalding with steam.

Lhermitte and Aman-Jean have described a case of hemiplegia caused by air embolism. The patient, aged sixty-three years, had a firm tumor in the left cervical region from which a specimen for biopsy was taken. The external jugular vein, which was imbedded in this firm mass, was cut and remained gaping. A hissing sound was heard on three successive respirations; in five or six seconds a bruit was clearly audible in the region of the heart, and in four or five minutes the left side became paralyzed and remained so for half an hour. Six days later, when a tampon was removed, the same noise, followed by hemiplegia, recurred. Lhermitte and Aman-Jean were of the opinion that the air passed through the lungs on its way to the heart and brain. A similar experience was reported by Sergent, Baumgartner, and Kourilsky during an operation on a lung. They were of the opinion that a frothy mixture of blood and air constitutes a greater hazard than air alone. These cases suggest that hemiplegia immediately after block dissection of the neck may occasionally be caused by embolism with air, although manipulation of the carotid artery may be more important.

The question often arises whether hemiplegia is due to metastasis when the operation has been for carcinoma. This is rarely the case in hemiplegia of abrupt onset, since metastatic nodules, as might be expected, produce their symptoms more gradually. When hemiplegia occurs with empyema of the chest, it may presage the formation of an abscess in the brain.

CONVULSIONS

As a rule convulsions make their appearance within ten days following operation, and they are not to be taken lightly since they are generally symptomatic of some organic cerebral lesion. They may be local or general, tonic or clonic, and are often followed by paralysis. Spinal puncture is not only of diagnostic help but it also has therapeutic value.

The following case is illustrative: A boy, aged eighteen years, was operated on under gas anesthesia for a perforated gastric ulcer. On the following day there followed in rapid succession five generalized convulsions. The neck was found to be rigid. A bloody spinal fluid indicated hemorrhage, possibly, at this age, as a result of a ruptured aneurysm. Recovery was complete.

When convulsions occur it is well to administer phenobarbital daily for a few months. Normally there seems to be a certain resistance to convulsions; as in walking through a forest a path is gradually made which makes subsequent walking easier, so it probably is with convulsions. They should be avoided whenever possible in the hope that grand or petit mal will not be added to the burden of the patient. In one case, that of a girl, aged eight years, who had a grangrenous appendix removed under gas and ether anesthesia, convulsions appeared while she was anesthetized. Her temperature, after she left the operating table, was 105°F. She was restless and had glycosuria but she recovered from every disturbing symptom within twenty-four hours. This probably represents one of the little understood cases of "ether convulsions."

EXTRAPYRAMIDAL RIGIDITY

When this condition occurs, the tentative diagnosis of meningitis is usually made since the neck is found to be rigid. Continued application of pressure in raising the head will gradually permit complete flexion of the head on the thorax, which is not true in meningitis. Further observation will disclose that

the head may sink slowly when it is released, and one may even encounter some resistance when it is pushed down on the pillow. The limbs also exhibit lead-pipe rigidity and, as in the case of the neck, continued pressure during the performance of Kernig's test will enable one to extend the legs completely; the abrupt spasm noted in meningitis on palpation of the hamstring muscles whenever a given angle is reached is missing.

In extrapyramidal rigidity the tendon and pupillary reflexes may be absent or present, there may or may not be tremor, and the patient may be clear, confused, or comatose. In one case the globes of the eyes were deviated upward. The condition has been observed following various types of anesthesia, and it may be present when the patient is first seen following operation or it may appear several days later. It is a serious omen, but some patients slip into this state and out of it again and recover. I have also observed it in cases of pneumonia and typhoid fever, and in some cases of cirrhosis of the liver and hepatic insufficiency. The blood findings, so far as we have studied them, may in some cases be quite negative. The condition impresses one as being toxic in origin. The disturbance as far as it pertains to the nervous system is probably situated in the basal ganglia.

A somewhat similar condition, but resembling more closely decerebrate rigidity, has been observed following spinal anesthesia in which the usual dose is administered to a patient with profound anemia. The dose of anesthetic agent given intraspinously should be sharply reduced in anemic patients, as Lundy has emphasized, since this complication is extremely grave.

DEFICIENCIES

The deficiencies constitute one of the most interesting group of cases, are probably much more common than is generally appreciated, and form a liaison with the psychoses I shall discuss presently. As might be anticipated, the substratum of this complication often has been existent for months or years before the operation. The following cases are illustrative:

A woman, aged sixty years, had undergone a pelvic operation twelve years previously, the exact nature of which was unknown, but which was followed by the formation of a fecal fistula. To limit excretion through this passage she had severely restricted her intake of food and fluid. Eight weeks prior to her admission she had begun to be troubled with glossitis and with numbness of the hands and feet. She could not insert hairpins in her hair and exhibited a moderate ataxia in walking. Vibratory sensation was lost over the iliac crests and lower extremities and was reduced in the hands. Appreciation of passive movements of the joints of the fingers was greatly reduced, and of the toes, slightly impaired. The plantar responses were flexor, but the relatively impaired tendon reflexes in the upper extremities and the moderately increased tendon reflexes in the lower extremities indicated probable pyramidal involvement. The neurologic picture was typically that of subacute, combined degeneration of the spinal cord and degeneration of the peripheral nerves such as is seen in pernicious anemia. The value for hemoglobin was 12.9 gm. per 100 c.c. (72 per cent); the erythrocyte count was 3,250,000 per cubic millimeter, and the leukocyte count 4,800. The blood smear was suggestive but not typical of pernicious anemia. Unfortunately, gastric analysis was not made in deference to the patient's wishes and in view of her feeble condition. Under combined spinal and inhalation anesthesia, numerous fistulas were closed and the sigmoid was resected. Three days later the patient died. Necropsy disclosed typical subacute combined degeneration of the spinal cord.

A second patient was a woman, aged sixty-five years, who seven years before coming to the clinic had undergone cholecystectomy. She complained of stomach trouble for a year prior to her admission to the clinic, and for six months she had restricted her diet to milk and eggs. She had lost 45 pounds (20.4 kg.) and complained of numbness of the hands and feet. The value for free hydrochloric acid in the gastric contents was 12. Exploration under regional and inhalation anesthesia revealed a dense

mass of adhesions in which the pancreas was buried and gastro-enterostomy was performed. Following operation the patient became forgetful and confused. Examination disclosed signs of a lesion of the spinal cord which involved the lateral columns more than it did the posterior columns; associated with this, however, were symptoms and signs of a more marked degeneration of the peripheral nerves. The patient now gave her age as fifty-four years instead of sixty-five, saw dozens of babies, churches, ferns, and groceries, related that she had just talked to her daughter (who had died five years previously), and that she had just come in from a walk. This Korsakoffian syndrome in light of present knowledge can best be explained on the basis of a deficiency. The patient died one and a half years later.

A third patient, a man, aged thirty-six years, five weeks before admission had undergone cholecystectomy for acute cholecystitis with stones. Following this operation he had vomited continuously. Two months after the operation he became disoriented, unruly, and spat and urinated on the floor. He was decidedly uncoöperative. The value for hemoglobin was 65 per cent; the erythrocyte count was 3,820,000 and the leukocyte count 16,700 per cubic millimeter. There was mild edema of the feet, the legs seemed to be paralyzed, all tendon reflexes were absent, the anal sphincter was relaxed, and the bladder was distended. Sensation was impaired, especially over the legs. Neurologically the condition suggested neuronitis or multiple neuritis associated with myelitis. The patient died three months after operation. Necropsy disclosed marked degeneration of the peripheral nerves, which Meriwether reported as being the type seen in beriberi, and axonal reaction of the anterior horn cells of the cord and similar changes in the cells of the posterior root ganglia.

In a fourth case, of pellagra without evidence of involvement of the nervous system, the patient was a man, aged forty-three years, who had carcinoma of the stomach with retention. He recovered under appropriate surgical and medical treatment but was accidentally killed two years later.

I should like to mention one more case in this series, that of a man, aged sixty-four years, who underwent resection for carcinoma of the colon under spinal anesthesia. Three days later he became quite merry, disoriented, and tried to leave his bed. The plantar responses were both extensor by Babinski's method; there was marked perseveration and some aphasia. These signs were indicative of more than a psychosis. The taking of fluid and of a diet high in vitamins were encouraged and, nine days later, he was greatly improved. Shortly thereafter recovery from the neurologic signs was complete.

I have cited these cases, too briefly for your critical analysis, but, I trust, at sufficient length to carry the suggestion that deficiencies must be thought of. In these cases it is highly important to administer adequate amounts of fluids and food. The administration of large doses of liver extract intramuscularly hastens recovery.

THE PSYCHOSES

Following anesthesia or operation there may be a change in the patient's behavior. Dreams of the night before may be woven into the events of the forenoon, and there may be a distorted awareness of his situation and surroundings. He may attempt to leave his bed too soon, pull out a drain, refuse to eat, and become unduly irritated and uncoöperative; he may become fearful and agitated, euphoric or depressed, hallucinated or delusional. Men and women are affected equally, but patients somewhat beyond the middle forties are more prone to become psychotic. The type of operation, if major in scope, probably makes little difference.

In reviewing these cases one soon becomes aware that he is dealing with several kinds of psychoses. The commonest type and the one I shall deal with first is what may more strictly be called the "postoperative psychosis." One of the peculiarities of this psychosis is that it usually does not begin at once but after the lapse of about five days (Doyle). The probable cause of this is still a matter for speculation. The average dura-

tion of the psychosis is thirteen days, and the outstanding features, according to Kleist (quoted by Doyle), are confusion, hallucinosis, especially of vision, illusions, and disturbance of motility.

Generally speaking, postoperative psychoses are placed in the toxic-infective-exhaustive group; but there may be no intoxication, no known infection, and no proved exhaustion, and this term to cover all of them seems on first thought inappropriate. To classify this group of cases under the heading "psychoses associated with somatic diseases" aids but little in delineating what is meant by the term, postoperative psychosis.

Often there is no rise in temperature with a true postoperative psychosis, certainly not enough to explain the mental state. This is strikingly illustrated by patients who have gone through a postoperative psychosis with little or no temperature and then have some febrile complication such as epididymitis or pneumonia, but without delirium. A postoperative psychosis and a febrile delirium are evidently two very different reactions.

Whether the operation or the anesthetic agent contributes primarily and chiefly to the development of this psychosis has been argued for and against, but it seems significant that when the psychosis fills the requirements of a "postoperative psychosis" in the restricted sense of the term, anesthesia is almost always by inhalation and usually includes ether. I could not ascertain that any cases of so-called true "postoperative psychosis" followed spinal anesthesia. If loss of consciousness is a factor, one might anticipate an earlier onset of the psychosis; if directly due to ether, possibly the same might be expected. Some indirect endogenous response of a toxic nature may play the leading rôle.

In one case a man, aged thirty-seven years, had a herniotomy performed under gas and ether anesthesia. Four days later he remarked that the room was moving upward, that a finger was writing on the wall, that someone was squirting dirty water on him through a hole in the ceiling. He was restless and at times disoriented. Within a few days he recovered. In another case, a married woman, aged forty-two years, on April 30 underwent total abdominal hysterectomy for fibroid tumors, left salpingo-oophorectomy, and appendectomy, under combined gas and ether anesthesia. She had always been well mentally. On May 4, she remarked unexpectedly that someone on the same floor had died; inquiry revealed that this was not true. The thought disturbed her. On the following day she related that some Mexicans, of whom she had seen many since childhood, had passed her door and had even entered her room. She said she had remarked to the nurse (also untrue) that Mexicans were poor physical specimens, subject to tuberculosis and to other illnesses. She thought that this information had reached the family of these Mexicans, and that the relatives had come to chastise the nurse. She had heard them whipping the nurse at a post on the lawn until the nurse had died. She insisted this was true although assured of the contrary. During this psychosis the patient was usually buoyant, talkative, and sleepless. On May 8, she was entirely well. At no time could it be said that she was disoriented. Subsequently her husband wrote that she had remained well.

It seems trite to mention the matter of sedatives, but it is always advisable to review the medication the patient has been receiving. For example, when the dosage of bromides has been heavy, a restless patient may become confused and hallucinated, which in turn may lead to increasing the dose of sedative. Ataxia, nystagmus, and a demented behavior may then appear, which surprisingly often suggests the possibility of brain tumor.

That patients who have fever may become delirious temporarily need hardly be mentioned. Occasionally this takes on the picture of a mania.

Postoperative delirium tremens in alcoholics was formerly not uncommon, and doubtless it will be met with again.

The psychoses associated with hyperthyroidism have long attracted attention. Dunlap and Moersch classified the mental reactions as of three types: (1) toxic-exhaustive psychoses, (2) acute delirium reaction,

and (3) manic-depressive reactions. The first made up 91 per cent of cases. The theory that, "the entire nervous system seems to be in a state of hyperirritability and fatigue," as H. S. Plummer put it, and possibly that unstable individuals break more easily under the stress of hyperthyroidism, seems reasonable and explains a fair representation of hyperthyroid patients in this group. Dunlap and Moersch found that thyroidectomy is definitely contraindicated in the course of severe psychic reactions.

Mention was made earlier of the deficiencies. Just as in Korsakoff's syndrome, pellagra, and pernicious anemia, so also may a psychosis be associated with degenerative neurologic lesions. Full blown cases are not common, but they do occur often enough to suggest that partial, or subclinical deficiencies may exist more often than is realized. This may explain the success of the old empiric treatment of forced-feeding in cases of postoperative psychosis, and it suggests at the same time that the addition of vitamins and injection of liver extract may do even better, although this might not be defensible on the basis of objective evidence alone. I believe the results justify the treatment.

Major psychoses also enter the picture of mental disorders encountered during convalescence. The manic phase of manic-depressive insanity may be precipitated. The talkativeness, alertness, and tendency to incorporate immediate incidences into the conversation, and the flippancy, irritability, euphoria, and physical agitation, are suggestive; a history of previous attacks, with recovery, in the patient or his relatives helps one to recognize the character of the disturbance. When a mania of this type develops, we must be prepared for a psychosis of longer duration, as a rule one that will last three or four or more months. Transfer of the patient to a sanitarium after the wound has healed is usually recommended.

One might anticipate that depressions of manic-depressive insanity would be encountered more frequently. It is my experience, however, that depressions are more likely to be complicated by operations than operations by depressions. So often the somatic complaints of a depressed patient get him into the hands of a surgeon, and the surgeon must be ever on the alert to avoid operating on such patients except when delay would be fraught with danger. An operation will not pull a patient out of a depression; it will often make the depression worse and the whole experience will be an unhappy one to all concerned.

Another of the more protracted and frequently disagreeable types of postoperative mental disorder is that associated with senility. An example of this was encountered in the case of a man, aged sixty-nine years, who underwent suprapubic prostatectomy under spinal anesthesia. His father, one brother, and one sister (of seven siblings), were insane. A few days after operation he seemed worried, said he wished that two of his children were dead, and then feared they might die; he became obsessed with religious ideas, prayed much, thought his nurse was the devil; he feared other patients, was afraid to fall asleep, refused his food, and then demanded it at once. He related that his wife was unfaithful. Here we have a mixture of depression with delirious and senile elements. Seven months later his wife said, "soon he will be himself."

More prolonged psychoses may develop in which the question arises whether they may rightly be included in this group. For example: A young woman, aged twenty-three years, had an Albee bone-graft for tuberculosis of the seventh and eighth thoracic vertebrae. Twenty-two days later she became obtrusive because of her irritability. She insisted she could not move her legs, then got out of bed and walked. When this was called to her attention she denied having said she could not walk. She asked, "What are you going to do to me, inject something?" She said her people would suffer because she had written letters to a man, that she would be driven round in a circus as a clown. She refused to coöperate and her hands had to be bandaged to prevent her from excessive picking of her nose. She was committed to an asylum for four or five years because of increasing violence. In a correctly and neatly written letter nine years later she

expressed her gratitude and said that she had been working and had been entirely well for four years. This case has both schizoid and affective features, and the development of the psychosis may have been more or less loosely associated with the operation.

In some patients or their families a ready tendency to develop a psychosis appears. Thus one patient had been psychotic for six or twelve hours following each of the three deliveries; four days after inguinal and umbilical herniotomies and appendectomy performed under regional and inhalation anesthesia she became hallucinated and talked with spirits. This state lasted several days and then cleared up. One brother had been in a state hospital with a psychosis from which he had recovered.

Occasionally a psychosis begins at once: For two or three years a sallow woman of low vitality, aged fifty-seven years, had occasionally seen men and women when she had looked laterad, but she was aware of these visions as hallucinations. Immediately after an abdominal hysterectomy under ether anesthesia she thought the room was on fire and threw water around to put it out; she also saw snow coming in the window (the operation was in August) and heard people talk about her outside her door. After a few days this mental state cleared up.

A good history of the patient's previous mental condition is helpful if it can be obtained. The testimony of relatives is notoriously inaccurate. I have seen relatives confronted with a patient who was obviously psychotic say they could, "see nothing wrong." The most flagrant instance I have encountered was in the case of an old woman who had set fire, first to the garage and then to a neighbor's house; it was not until she had killed a baby in an oven by baking it that her relatives conceded that there "must be something wrong with mother."

Taken altogether, it is seen that the postoperative mental disorders vary as to type and duration, and as to the patient's ability to recover from them. Most of them belong to the restricted group of "postoperative psychosis." These are followed by the group which may safely be called toxic-infective-exhaustive psychoses, in which the immediately preceding and following psychoses are usually included. These in turn are followed by the deficiencies, these again by the manic-depressive group, and these finally by the senile, schizoid, epileptoid, mentally unstable, and other groups.

Undoubtedly some psychoses may be prevented by attention to adequate diet; by putting at rest fears the patient may have regarding his progress and what was found at operation; by supplying, when necessary, an attentive, unobtrusive, reassuring nurse, especially at night; by a proper sickroom decorum and the avoidance, so far as possible, of irritating noises and exasperating routine, and by seeing to it that the patient has adequate rest. These same features apply to treatment. The injection of liver extract when there may be reason to suspect some deficiency can do no harm and may do much good. When the patient is fearful because of hallucinations or delusions or when he is delirious he should be observed, or other provisions should be made that he may not fall out of bed or escape; in these cases nurses should not leave the room without being replaced. If such measures are beyond the patient's means, window guards should be applied and, if necessary, wristlets or anklets secured so as to give plenty of freedom. These much abused appliances, in my opinion, often quiet the patient quickly, and they are safe, comfortable, and in some instances immeasurably less challenging than is manual restraint. Sedative drugs, physiotherapy, and hydrotherapy are often abused or neglected but are useful. As soon as possible the patient should be taken on short excursions from his room and returned to wider contacts. When feasible he should be taken out of doors.

Neurologic diseases have an evil reputation, but here we see that the postoperative complications are on the whole of a benign type. Some of them can be avoided. Fortunately, most of the patients get well.

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Spinal Cord Injuries*

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SPINAL cord injuries, similar to brain injuries, are occurring in rapidly increasing numbers, particularly due to high speed automobile accidents. During the past four years 154 cases of fracture of the vertebrae (cervical 51, dorsal 36, lumbar 67) were admitted to the surgical service at the Ancker Hospital, a fairly large percentage presenting neurological symptoms of variable degree. To those must be added the cases of spinal cord injury without fractures, such as the hematomyelias, spinal concussion, and penetrating wounds due to bullets and sharp instruments. In those cases where the meninges were torn the danger of infection and meningitis further complicates the picture. An interesting case in this group was that of a medical student, who, during a boxing match in his room, was thrown against his dresser and a rusty dissecting scalpel penetrated between his fourth and fifth dorsal vertebrae, injuring the right posterior columns of the spinal cord. He immediately developed sensory disturbances in his left leg. He drained spinal fluid for four days, accompanied by severe headaches. This gradually subsided. He made an uneventful recovery under symptomatic treatment except for the sensory loss in his leg. No signs of infection developed.

Concussion of the spinal cord until recent years has been considered an extremely vague disorder. The possibility of this condition has even been questioned by many observers, such as Kocher, Page, and others. However, observations, especially during the World War, have demonstrated conclusively that spinal concussion may be produced by direct blows to the spinal column, without external evidence of injury to the vertebrae and indirectly by terrific atmospheric vibrations from near-by explosions of dynamite or bombs. The concussion may produce very slight pathologic changes, but sufficiently pronounced to develop marked clinical syndromes. The clinical picture is usually one of an incomplete transverse lesion, with a fairly rapid improvement, often to complete recovery. The spinal fluid may be under increased pressure, usually normal,[1] and there is no evidence of bloc. Grinker suggests that this condition may be due to a marked disturbance in the spinal fluid circulation. Oppenheim[2] speaks of a molecular damage. Holmes[3] has demonstrated from his studies during the World War that the pathologic picture may vary from an engorgement of the blood vessels with oedema and punctate hemorrhages, especially in the gray matter, to areas of actual necrosis and softening, with complete destruction of some of the nerve cells and fibers. Frequently these areas are somewhat distant and apparently bear no relation to the punctate hemorrhages.

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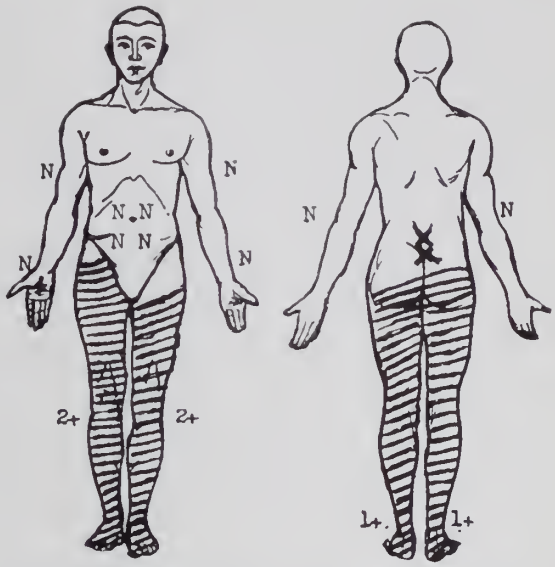
Case I. Spinal concussion secondary to automobile accident, paraplegia with incomplete level lesion at about the second lumbar segment, with gradual complete recovery.

A female, age 26, was seen in consultation with Doctor B. I. Derauf on December 22, 1934. On December 20, 1934, about midnight, her car ran into a ditch, turned over, and the patient was thrown out of the car. She was rendered immediately unconscious. She cannot recall the details of the accident or whether she sustained any injury to her head. She regained consciousness in about twenty minutes. She was lying on the ground, had no pain, but could not feel or move her legs. She was taken by automobile to the Northern Pacific Hospital and arrived there about one hour after the accident. She had to be carried into the hospital because her legs would not support her. Her bladder and rectal control were normal. There was a slight bruise on her left elbow, she complained of a headache, and severe pain in the lumbar region of her spine. Examination made about seven hours after the accident was normal throughout except for an abrasion on the left elbow, marked spasm and tenderness of the erector spinae muscles in the lumbar region, and a complete loss of sensation in both lower extremities below the level of Poupart's ligaments. There was marked paralysis of the entire musculature of both legs. Both knee and ankle jerks were definitely increased. The spinal fluid was under increased pressure, 220 mm.'s of water. There was no evidence of spinal bloc. The fluid was clear, contained 3 cells, a trace of globulin, and a negative Wassermann. The temperature was 99.6 degrees, pulse 88. She had voided normally. X-ray studies of the entire spine, both laterally and anteroposteriorly, did not reveal any evidence of fracture, dislocation or bone pathology. Her hemoglobin was 82%; leucocytes, 9,200; urine, normal; blood pressure, 120/70. Within twenty-four hours there was some return of motor function in that she could flex her knees and move her ankles and toes, and sensation had definitely improved. However, she complained of a burning sensation from both knees down. She was able to turn herself from side to side in bed, but still complained of marked pain in the lumbar spine.

Twenty-four hours later she could execute all movements with her lower extremities, was able to perform the knee-heel test, which was normal. However, the movements were slow and required considerable effort. Her legs felt very weak. She was able to recognize cotton, pin pricks, and vibration promptly, but stated that they were not quite as well defined as in the upper extremities. The knee jerks were still somewhat increased, but the ankle jerks were normal. There was no Babinski or ankle clonus. Her improvement continued so that she was able to walk a short distance within one month. The neurological examination on March 1, 1935, was normal throughout except for moderately increased knee jerks.



Case I. Spinal concussion with level lesion at about 2d lumbar segment.
=—Sensation impaired to all forms. Motor paralysis of both legs.
X—Marked muscle spasm and tenderness.

However, the pain and muscle spasm in her lumbar region became more pronounced as she got up and about. She was fitted with a firm abdominal belt which gave her considerable relief. She continued to have a slight limp with her right leg. This was due to the fact that when she placed her weight on her right leg she developed severe pain in the right lumbar region. She recovered from her neurological syndrome in about six weeks after her accident, but she still complains of pain in the lumbar region, evidently due to a severe muscular and ligamentous strain.

THE HEMATOMYELIAS

The hematomyelias, similar to the cerebral hemorrhages, are more prone to manifest themselves in the gray matter than in the white tracts. This is in part due to the difference in the blood supply, as most of the hemorrhages occur from the smaller branches of the anterior spinal artery. Furthermore, the supporting structures of the white matter offer greater protection to these parts. The most frequent location is in the cervical portion where one or both sides of the cord may be involved. The greater flexibility of the spine in this region accounts for the larger percentage of hemorrhages in this area. Hematomyelia may occur with severe vertebral injuries and fractures, with blows on the head, with sudden sharp bending of the head, or even follow-

ing slight exertion, probably due to an abnormal fragility of the blood vessels. One of our patients developed a marked bilateral hematomyelia in the cervical region, with an incomplete quadraplegia, when one of her coworkers suddenly pushed her head forward in an attempt to startle her.

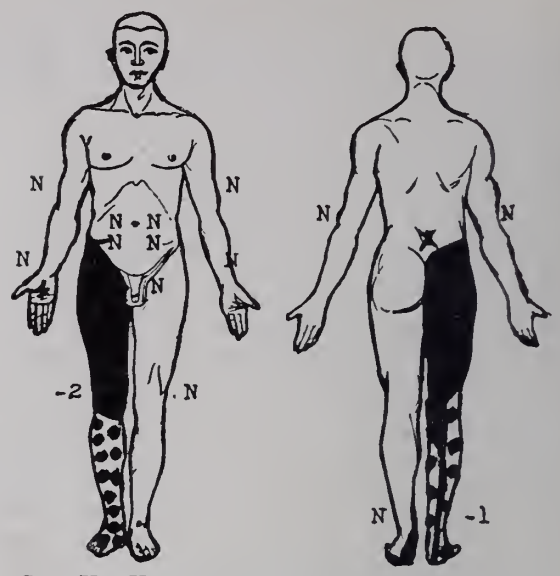
The onset is usually sudden and dramatic, often presents an incomplete transverse lesion with considerable spinal shock. With the subsidence of the oedema and pressure, and because the cord fibers frequently escape permanent damage, the prognosis is more favorable than the acute clinical syndrome warrants. The spinal fluid may or may not be hemorrhagic, frequently under somewhat increased pressure, with or without evidence of bloc. Due to the oedema of the cord the extravasated blood, and the increased spinal fluid, a definite pressure syndrome frequently develops, sometimes to the extent of a complete transverse myelitis. Unless this acute pressure is relieved similar to the intracranial pressure from cerebral oedema, marked and permanent lesions may develop, both in the cells and fibers. This is particularly prone to occur at the level of the injury where the oedema and other changes are usually most pronounced.

Surgical interference is contraindicated in spinal concussion and in hematomyelia. However, repeated spinal drainage may be of benefit by lessening the increased spinal fluid pressure and the associated spinal oedema.

Sharpe[4] has emphasized this procedure in acute traumatic lesions of the spinal cord in cases of increased spinal fluid pressure, with partial bloc, and reports favorable results. He recommends combined lumbar and cisternal drainage in those cases where lumbar drainage alone fails.

Case II. Hematomyelia in the lumbo-sacral region secondary to automobile accident, with permanent symptoms of urinary incontinence, sensory loss, and weakness of the right leg.

A male, age 53, was seen in consultation with Doctor F. E. B. Foley on October 20, 1931. His personal history was negative except that in June, 1928, he injured the left side of his face and sprained his back in an automobile accident. He recovered in three months. His present complaint began on November 17, 1930. While walking across



Case II. Hematomyelia in lumbo-sacral cord. Tactile, pain, and temperature senses lost.
:::—Tactile, pain, and temperature senses impaired. Slight motor weakness, right leg.
X—Tenderness on pressure.

a street he was struck on his left hip by the bumper of a truck. He was thrown to the pavement with considerable force, was not unconscious, and was taken to the Ancker Hospital. There was a laceration on the left thigh, and a bruise on the right hip. He complained of severe pain in the lumbar spine and weakness and numbness of the right leg. No thorough examination was made at the hospital as he refused to be admitted. The laceration on his thigh was dressed and his back was strapped with adhesive. He was able to walk with the assistance of a cane. Upon his return to the hotel he noticed that he could not control his urine. He remained in bed for four months because of pain in his hip and back. The weakness and numbness in his right leg and the urinary incontinence continued. He has to wear a napkin or a urinary rubber bag constantly. Since the accident he has had complete loss of sexual function. When his stools are loose he has some difficulty with his rectal control. The hip and back gradually improved, but there has been no change in his neurological symptoms.

He consulted Doctor C. C. Chatterton in January, 1931, who applied a sacro-iliac belt for the pain in the right sacro-iliac region. This gives him considerable relief, and he wears it constantly. During February and March he took forty chiropractic treatments, without benefit.

We were asked to examine him on October 20, 1931, ten months after the accident, because of a pending legal action.

The examination revealed that he was a well nourished man, walking with a limp with his right leg. He had a well healed scar four inches long on the inner side of his left thigh. He complained of pain and tenderness in the right sacro-iliac region which

was increased on straight leg raising. All other physical findings were normal. There was some dribbling of urine during the examination.

The neurological examination showed that all cranial nerves and the upper extremities were normal. The abdominal and cremasteric reflexes were normal. The right lower extremity revealed complete loss of tactile and pain and temperature sense from the level of Poupart's ligament to below the patella anteriorly, with a somewhat similar distribution posteriorly and extending in a small band over the posterior portion of the leg. Over the remaining part of the leg, tactile, pain, temperature, and vibratory senses were somewhat impaired.

The left lower extremity had a normal knee and ankle jerk, no ankle clonus or Babinski, normal muscle strength, normal sensation except over a small area in the region of the left internal malleolus where tactile, pain, and temperature sense were impaired. The Romberg was negative.

Rectal examination revealed a moderately relaxed sphincter.

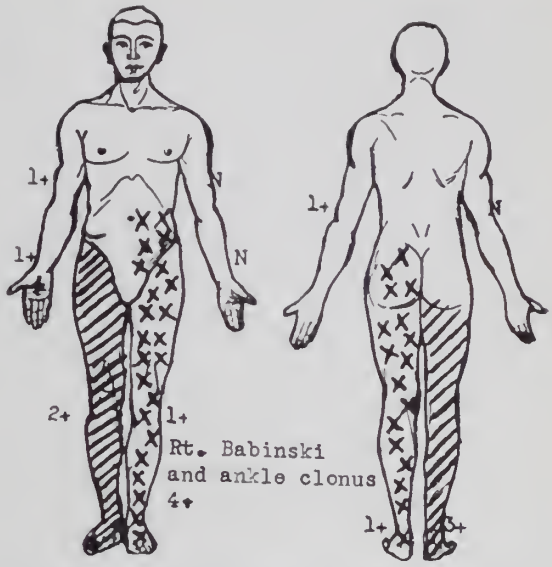
His hemoglobin was 88%; blood pressure, 140/80; urine, normal. The blood Wassermann was negative. The spinal fluid was under normal pressure, clear, 5 cells, a trace of globulin, a negative Wassermann, and a negative colloidal gold curve. X-ray studies of the dorso-lumbar spine revealed no bone pathology.

There has been no improvement in his neurological syndrome since the settlement of his case. This patient evidently sustained a hematomyelia in the posterior gray matter of the lumbo-sacral region of the spinal cord at the time of his accident.

Case III. Incomplete Brown-Séquard syndrome with right hemiplegia, (arm flaccid and leg spastic) with loss of sensation in the left trunk and left leg secondary to hematomyelia in the right cervico-dorsal region due to trauma.

A female, age 58 years, was referred to us by Doctor C. M. Golden, Tyler, Minnesota, on August 22, 1932. Her present complaint began on August 8, 1932. She was riding in the back seat of an automobile when a tire blew out and the car turned over. She was thrown against the side of the car, her right shoulder striking the upholstering. She was not rendered unconscious but immediately developed a complete paralysis of her right arm and both lower extremities. She was taken to a hospital at Tyler, Minnesota, and remained in bed for twelve days. She had a flaccid paralysis in the right arm and somewhat spastic paralysis of both legs. Her left arm was not involved. Her bladder function was normal. Motor power gradually returned in her left leg and was about normal within forty-eight hours. Within a few days there was a slight return of function in the right leg. The right arm also improved within a week in that there was some motion in the shoulder and elbow joints, but the flaccid paralysis in the wrist and hand continued.

We were unable to obtain a record of the sensory findings or spinal fluid examination at that time.



Case III. Hematomyelia in right cervical region with incomplete Brown-Séquard syndrome.

XX—Pain, temperature, vibratory senses markedly impaired.

///—Tactile sense impaired.

Motor—Right hand, flaccid paralysis and atrophy. Arm, general weakness. Leg, moderate weakness with spasticity.

She stated that the only external evidence of injury was a slight bruise on her right shoulder. She returned to St. Paul by automobile two weeks after the accident, on the day of our examination. Her chief complaints were paralysis and weakness of the right arm and leg, inability to differentiate between heat and cold on the left side and left leg when she had her bath, and some pain in the cervical region.

The neurological examination revealed that all cranial nerves were normal. In the left upper extremity muscle strength, reflexes, sensation, and so forth, were normal. In the right, impaired motor function of the shoulder girdle and upper arm muscles. Complete flaccid paralysis of the wrist and hand. The hand presented a mottled appearance and was somewhat oedematous, due to vasomotor disturbance. The biceps and triceps reflexes were within normal limits. Tactile, pain, temperature, and vibratory senses were normal.

The left lower extremity revealed fairly normal muscle strength, and the patient could execute all movements. The knee jerk was slightly increased, and the ankle jerk was normal. There was no Babinski or ankle clonus. From one inch below the level of the umbilicus over the left lower trunk and left leg, tactile and position senses were slightly impaired, but pain, temperature, and vibratory senses were definitely decreased. The right leg was spastic, some impairment of motor function, and increased knee and ankle jerks, a positive Babinski, and ankle clonus. Tactile sense was impaired, but

pain, temperature, vibratory, and position senses were normal.

The abdominal reflexes were absent due to flabby musculature. The Romberg was negative.

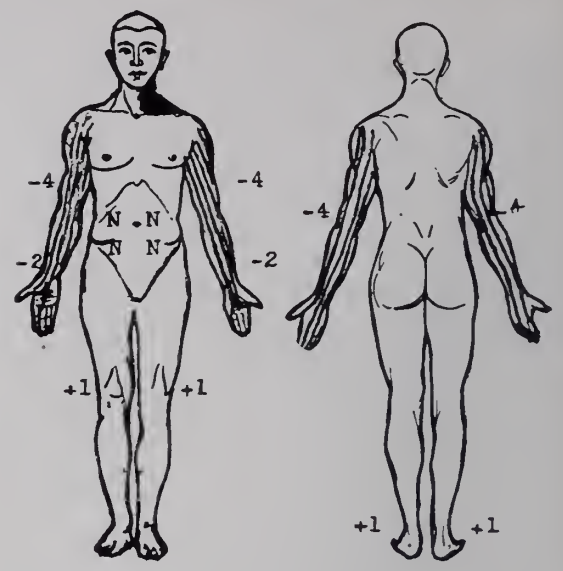
Examination of the spine was normal except for some tenderness in the cervical region.

The spinal fluid was under normal pressure and clear. There was no evidence of bloc, and the serological examination was normal. X-ray studies of the cervico-dorsal spine were negative. The patient gradually improved with massage and exercise so that after ten months she was able to do some housework, but her right hand is still quite helpless, atrophied, and oedematous, and the sensory impairment in her left leg is still present.

Case IV. Hematomyelia of anterior gray matter in cervical region. Complete flaccid paralysis, with marked atrophy of all muscle groups of both arms, with gradual recovery except supinators of left forearm.

A female, age 24, was seen in consultation with Doctor C. C. Chatterton and Doctor L. J. O'Connor on August 20, 1930. Twelve hours previously she had been thrown out of a rumble seat in an automobile accident. She was immediately rendered unconscious for about five minutes. She thinks the automobile seat struck her in the back of the neck. Both arms were immediately paralyzed. She was admitted to St. Joseph's Hospital in moderate shock. Her temperature was 96.4 F, pulse 80, respirations 20. She complained of severe pain in the neck and shoulders. She had some emesis. Examination revealed that her neck was held stiff and turned toward the right. There was marked ecchymosis in the region of the eyes, some cyanosis of the lips; pupils and other cranial nerves were normal except for a fine bilateral nystagmus, complete flaccid paralysis of both arms, biceps and triceps reflexes absent, sensation lost over the area supplied by C3 and C4 on left side. Tactile, pain, and temperature senses were impaired over both arms, especially the hands. She was unable to execute the slightest movement with either arm or hand. The trunk and both lower extremities were normal throughout. Both knee jerks were slightly increased, but no pathologic reflexes were elicited. Motor power and sensation were normal. Rectal and bladder control were normal. Pantopon was given hypodermically and glucose intravenously and per rectum. There was some improvement in the general condition. The following day a lumbar puncture revealed a slightly blood-tinged spinal fluid under normal pressure, with no evidence of bloc. Sensation gradually returned to normal in her upper extremities within one week, but there was no change in the flaccid paralysis.

X-ray studies revealed a fracture of the left second rib and a fracture of the left transverse process of the first dorsal vertebra, without displacement. There was no evidence of fracture or dislocation of the cervical spine.



Case IV. Hematomyelia in cervical region (bilateral).
Sensation lost over left supraclavicular, impaired in both arms.
Marked atrophy of both arms.

A diagnosis of a hematomyelia of the anterior gray matter of the cervical region, bilaterally, was made and a hopeless prognosis given. Her general condition improved, but she gradually developed atrophy of the entire musculature of both arms. In two months there was some return of motor function in that she could move her fingers slightly. However, the atrophy in the shoulder girdle muscles had become so pronounced that the weight of the arms would dislocate both shoulder joints and she was compelled to carry both arms in a sling constantly. There was no nerve trunk tenderness at any time. With massage and passive motion she began to improve and within five more months there was some motion in all muscle groups. Within one year after the accident she had sufficiently recovered so that she could resume her position as a stenographer and typist. The reflexes became normal. The neurological examination is negative except for some hyperasthesia over the left third and fourth cervical segments and some weakness of the supinators of the left forearm.

This case clearly demonstrates the advisability of allowing sufficient time before rendering an opinion as to prognosis. Many cases of hematomyelia recover to a much greater degree than the acute symptoms indicate.

The subdural hematomas present a different and somewhat simpler problem, both clinically and therapeutically. However, this syndrome in its pure form does not manifest itself as frequently as the literature leads one to believe. Unfortunately it is often complicated by a hematomyelia or extensive

trauma to the cord, secondary to the original accident. Clinically it manifests itself by a less rapid development of an incomplete transverse lesion with evidence of paraplegia. Because of posterior root irritation, either radicular pain or a band of hyperasthesia may be encountered at the level of the lesion. The spinal fluid is clear, or may be somewhat hemorrhagic if the subarachnoid has ruptured, with evidence of partial bloc. Roentgenologic studies do not reveal any signs of compression due to vertebral dislocation. Unless clinical improvement is satisfactory with spinal drainage, prompt surgical interference is indicated. However, most of these cases progress to fairly complete recovery without any operative procedure.

In fracture or fracture-dislocation of the vertebrae either or all of the before-mentioned spinal cord injuries may present themselves, but frequently the involvement of the spinal cord is more extensive because of the crushing effect of the vertebral bodies. The disturbance in the spinal circulation, especially due to thrombosis or tearing of the branches of the anterior spinal artery, also adds to the destructive process. Similar to skull injuries, the important factor is not the vertebral fracture or dislocation itself, but the extent of spinal cord tissue involved.

In all severe injuries the usual syndrome encountered is a well defined transverse myelitis with a flaccid paraplegia, an associated sensory disturbance, loss of sphincter control, and absent reflexes below the level of the lesion. Holmes[5] believes that the segmental level of the lesion can be usually recognized as accurately by the extent of the motor paralysis as by the upper border of the sensory disturbance. This applies not only to the extremities but also to the trunk musculature, by observing and palpating the contraction of the intercostal muscles on respiration, and the abdominal ones and movements of the umbilicus on exertion, such as lifting the head or attempting to sit up. This is of particular value in incomplete lesions where the sensory level is not as sharply defined.

Injuries at the various levels of the cord naturally produce clinical symptoms differing not only in the extent but also in the nature of the paralysis. In cervical cord injuries the upper extremities are usually more extensively involved than the lower ones and have a more prolonged course. The paralysis in the upper extremities usually is of the flaccid type (lower motor neuron lesion) while the lower extremities may manifest spasticity with increased and pathologic reflex changes (upper motor neuron lesion). This was well illustrated in Case IV. Other interesting symptoms which occasionally present themselves in lesions at this level are inequality of the pupils, narrowing of the palpebral fissure, and disturbance in sweating on the affected side, evidently due to cervical sympathetic involvement. Other unusual symptoms may be an unaccountable hypothermia or pyrexia, bradycardia, priapism, and trophic disturbances. Parkin[6] reports a case with a lesion of the fifth to the seventh cervical segment in which the temperature fell to 78 degrees F. and the pulse rate varied between 26 and 37 per minute. Holmes reports ten similar cases, all of which died within eight days. In each case the lesion was located in the lower part of the cervical enlargement. In mid-dorsal region lesions persistent vomiting may be encountered even in the absence of any abdominal distention or evidence of intestinal paralysis. The Brown–Séquard syndrome may occur in any unilateral lesion, but is usually atypical because of the variable involvement of the cord, as in Case III. The injury to the cervical spine may be suspected from the position of the head, the pain on motion of the neck, and the tenderness on palpation.

Roentgenologic studies should be made of every spinal column injury, not only at the site of the lesion but of *all* the vertebrae. Occasionally the level of the spinal cord involvement does not conform to the vertebral trauma. One of our cases presented a second lumbar segment lesion with a fracture of the body of the eighth thoracic vertebra. Furthermore, x-ray studies reveal the extent of the fracture or fracture-dislocation and are a valuable aid in determining the amount of spinal cord destruction.

SURGICAL INTERVENTION

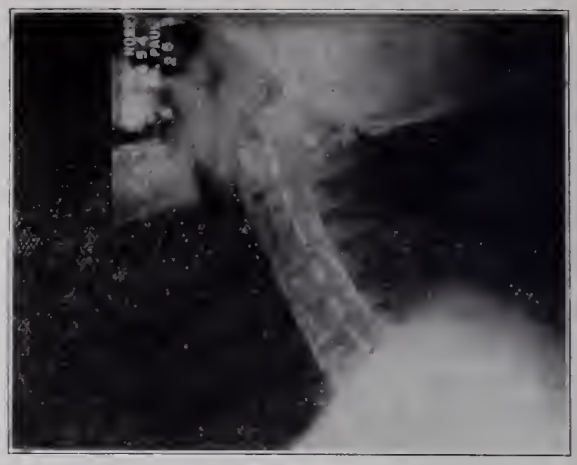
The indications for surgical intervention are still somewhat indefinite, as there are no clinical tests which conclusively determine that the spinal cord is completely severed or irreparably crushed. In cases where the fracture-dislocation is so marked that the spinal cord must be completely damaged, surgery is of no avail and contraindicated. Spinal fluid pressure studies should be made in every case. With a complete bloc, especially in the presence of signs either sensory or motor that the conductivity of the cord has not been completely abolished, an early decompression laminectomy may offer a better prognosis. However, many neurologists and surgeons still believe that the cases in which a laminectomy is indicated are few indeed, and that whatever improvement manifests itself would have occurred also under conservative treatment. Our opinion and experience are in accord with this because the trauma to the spinal cord occurs at the time of the accident and the destroyed nerve cells and fibers cannot regenerate.

In cervical fracture-dislocations gentle manipulation with traction and immobilization with sand bags or light weights or reduction with Taylor's[7] method should be instituted.

Kahn and Yglesias[8] have called attention to the tendency of some of the cases of forward displacement of the atlas on the axis with fracture of the odontoid process to become progressive. A pressure myelitis may develop at the time of the dislocation or even several months later, as the displacement becomes more pronounced. To prevent this complication they recommend an early occipito-cervical fusion and report favorable results.

Case V. Fracture of the atlas with posterior dislocation on the axis, with fracture of the odontoid process, due to a blow on the head with the fist. No definite neurological symptoms. Sudden death while blowing nose.

A male, age 39, was admitted to the Neurological Service at the Ancker Hospital on May 24, 1935, in a somewhat intoxicated condition. He had been in a fight and had been knocked down. He complained of severe pain in the neck and an inability to flex his head. He was noisy and unruly. He had been



Case V. Fracture dislocation of atlas and axis with fracture of odontoid process. Marie Strumpell arthritis of cervical spine.

admitted to our service on two previous occasions because of epileptic seizures. At these times it was noted that the movements of the spine and neck were limited, but he refused to remain in the hospital for x-ray studies. He stated that he had been in a Veterans' Hospital and had been diagnosed arthritis of the spine.

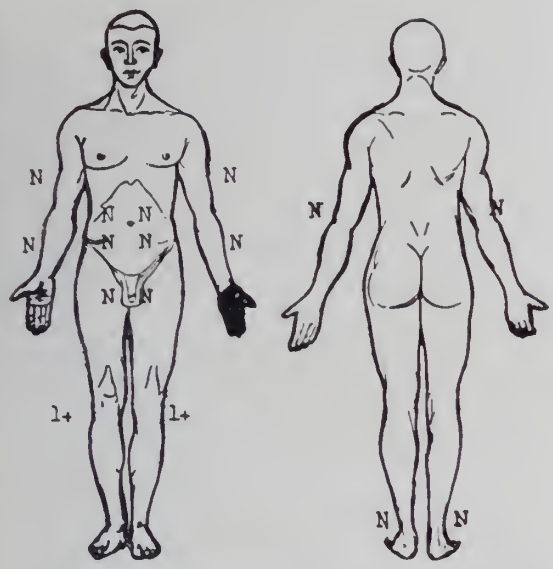
Examination made on the day of the accident was negative except for limitation of motion of the head and neck, absent knee jerks, and a questionable right positive Babinski. He was very abusive and restless. His motor power was normal in all four extremities. A lumbar puncture revealed a somewhat hemorrhagic spinal fluid under normal pressure with no evidence of bloc.

X-ray studies revealed a complete ankylosis of the cervical spine,—a Marie-Strümpell spondylitis, —a fracture-dislocation of the atlas on the axis, and a fracture of the odontoid process. Traction was applied by means of weights. His mental disturbance became more pronounced. On the fourth day he removed the weights, sat up in bed, blew his nose, and died within a few minutes.

A postmortem revealed the fractures described above and a marked compression of the cervical cord in that region. In cases of this type with psychotic symptoms a firm bandage or Wolf collar undoubtedly is a safer procedure than weights because of the extreme restlessness and lack of cooperation in these disturbed mental states.

Case VI. Extensive skull fracture with fracture-dislocation of the fifth and sixth cervical vertebrae with cerebral and spinal cord symptoms, with almost complete recovery.

A male, age 45, was seen in consultation with Doctor Paul Kelly on February 8, 1935. On September 15, 1934, a block of ice weighing 150 pounds struck the patient on the top of his head, rendering him immediately unconscious. He was taken to St. Joseph's Hospital. On admission he was in profound shock, comatose, there was profuse bleed-



Case VI. Extensive skull fracture with dislocation of sixth cervical vertebra. Sensation N. except astereognosis, left hand.
Motor N. except slight weakness, left hand.

ing from the right ear and from a scalp wound over the right occipital region, with marked ecchymosis over the entire left face. There was a flaccid paralysis of the right arm, the left arm and leg, but he could move his right leg. His temperature was 97 degrees, pulse 75. His blood pressure was, systolic 100, diastolic 60. General supportive measures were given. Within 24 hours there was some return of motion in the right arm, with gradual return to normal. During the first week his temperature varied between 97 and 102 degrees, F., pulse between 65 and 85, and his blood pressure around 120/70. He remained unconscious for seven days then gradually passed into a state of delirium and extreme restlessness, necessitating restraints for five weeks. During this period he was given chloral per rectum, codein hypodermically, and glucose intravenously. No spinal puncture was done because of continuous drainage from the right ear. On the second day after the accident x-ray studies were made with a portable machine. They revealed a stellate fracture with depression on the right side, centering in the lower anterior portion of the parietal region with fracture lines extending into the anterior, middle, and posterior portions of the vault, into the base of the middle fossa, and into the anterior fossa, through the right mastoid and squamous temporal, also a transverse fracture of the upper anterior portion of the vault, passing across the sagittal suture into the left posterior fossa behind the mastoid. A lateral film of the cervical spine showed a fracture of the posterior portion of the sixth cervical vertebra through the laminae, with downward and posterior displacement of the posterior fragment, also a fracture of the posterior portion of the spinous process of the fifth cervical vertebra.

Sandbags were kept around his neck, but with considerable difficulty because of his restlessness. On the tenth day he developed a bilateral bronchopneumonia which ran the usual course. On admission a slight urethral discharge was noted which developed into an acute gonorrheal urethritis, without further complications.

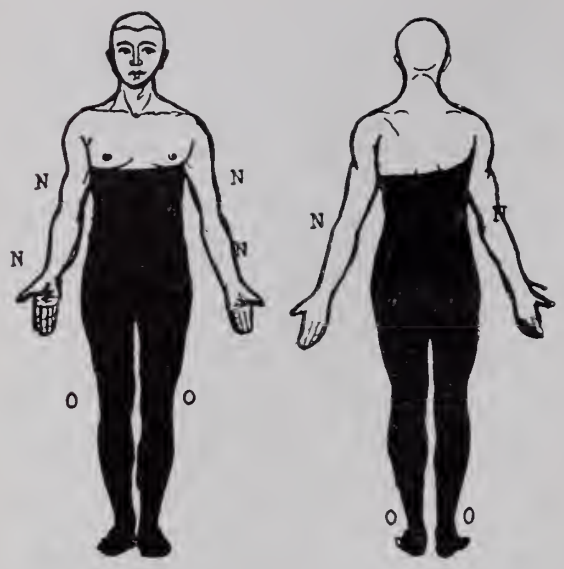
On admission to the hospital his pupils were equal and responded normally; all deep reflexes were absent. With the general improvement there was gradual return of the reflexes, with suggestion of a left ankle clonus, but no Babinski. No satisfactory sensory examination could be made.

On October 13th a Wolf collar was applied to the neck, on November 10th he began sitting up in a wheel-chair, and by December 1st he was able to take a few steps. There was a gradual return of motor function in his left arm and leg.

About the middle of February, 1935, five months after the accident, he was able to walk a considerable distance, still wore his Wolf collar, complained of pain in his cervical region, some headache and vertigo, numbness and weakness of the left hand, weakness with a slight limp of the left leg, and some impairment of memory. The examination was normal throughout except for some limitation of motion in forward flexion of the neck, slight impairment of hearing, right, some weakness of the left hand, a mild sensory loss with astereognosis of the left hand, moderately increased knee jerks, bilaterally, and a slight motor weakness of the left leg. All these symptoms gradually disappeared except the condition of his left hand which is still present.

Case VII. Compression fracture-dislocation of the fourth and fifth dorsal vertebrae with crushing injury to the spinal cord. Complete spinal fluid bloc. Laminectomy on the seventh day with slight clinical improvement.

A female, age 41, was seen in consultation with Doctor W. C. Carroll on August 12, 1934. She stated that on December 30, 1932, while riding in the rear seat of an automobile the car went down an embankment a distance of 125 feet, and she found herself doubled up between the bottom of the back and the rear of the front seat. She was conscious but unable to move her lower extremities. She was seen by Doctor J. D. Ball, Santa Ana, California. There was complete flaccid paralysis and complete anesthesia with loss of all reflexes from the level of the fourth dorsal cord segment down. She had retention of urine and marked bloating of the abdomen. A lumbar puncture revealed a clear spinal fluid under 150 mm.'s of pressure, with a complete bloc. Pulse 120, temperature 101.4 F. She was in moderate shock. X-ray studies revealed a compression fracture of the fourth dorsal with lateral displacement of the fragments. The lower border of the third was uneven and diffused with the fourth. The upper border of the fifth was also diffused with the fourth, with a fracture line across the lower border.



Case VII. Compression fracture of 4th dorsal vertebra with crushing injury to spinal cord at 4th dorsal segment.
Sensation lost to all forms.
Flaccid paralysis, lower extremities.

A laminectomy was performed on January 6, 1933, by Doctor Carl Rand, Los Angeles. The spinal cord was found badly damaged. She made an uneventful surgical recovery. Her neurological picture has shown very little change. Her abdominal reflexes have returned, and her rectal functions have improved somewhat. The motor paralysis and sensory loss have continued. She is up in a wheel-chair and has adjusted herself satisfactorily. It is quite remarkable that she manifests no evidence of trophic or vasomotor changes except a slight oedema of the feet, three years after her accident.

LATE MANIFESTATIONS

Among the delayed manifestations of spinal cord and root involvement due to vertebral trauma Kümmell's post traumatic spondylitis and the herniation of the nucleus pulposus are the most frequent. In Kümmell's disease there is always a history of trauma of a mild or moderate degree, either direct or indirect to the vertebral column. The acute stage soon subsides, followed by a variable period of comparative freedom of back pain, so that the individual can resume his former occupation. After several weeks or months there is a gradual return of symptoms in the traumatized area, sometimes with the development of a kyphosis. X-ray studies reveal a wedge-shape compression of a vertebral body. The location of this disease is usually in the thoracic spine and due to a disturbance in the nutritional arteries of the vertebra, secondary to the trauma. During this later period neurological symptoms may become manifest, such as intercostal pain from root compression or weakness in the lower extremities with reflex changes due to mild cord compression. With the early recognition of the disease and with proper orthopedic appliances there is a gradual subsidence of the syndrome.

Another vertebral disorder which occasionally manifests itself with late neurological syndromes is the extrusion of the nucleus pulposus from the intervertebral disc. Schmorl first described this condition in 1926 and stated that neurological complications rarely manifest themselves. However, since that time a large number of cases have been reported varying from a unilateral root irritation to a slowly developing transverse myelitis such as occurs in extradural cord tumors. Although the nucleus pulposus may present itself from any intervertebral disc with associated pressure symptoms, the lumbar region is most frequently involved. When it protrudes posteriorly spinal cord pressure syndromes may manifest themselves. If its course is a lateral one irritative signs of a single root may develop.

Peet and Echols[9] reported two cases, one with a cauda equina syndrome due to a herniation of the nucleus between the second and third lumbar vertebrae, the other with an incomplete fourth cervical segment level lesion due to pressure from the nucleus pulposus in this region.

Mixter[10] and Ayer[11] reported 34 cases, the greater number occurring in the lower lumbar region. They emphasized the similarity of the neurological symptoms to those of a low back strain or sacro-iliac disease.

These cases frequently give a history of having sustained a mild or severe back injury sometime previously. This is usually followed by an indefinite period of apparent recovery, after which there is a recurrence of symptoms occasionally accompanied by neurological manifestations. Spinal fluid examination reveals a partial bloc and increased protein. A lipoidal injection often shows a filling defect. X-ray studies may show a rarefied area in the upper part of

the vertebral body (Schmorl node) or a defect in the intervertebral disc. Surgical removal of the protruding nucleus pulposus usually results in a partial or complete recovery.

SUMMARY

1. The various types of spinal cord injury with and without vertebral fracture are described.

2. Therapeutic spinal drainage, expectant treatment, and surgery in limited selected cases are suggested.

3. Cases of various forms of spinal cord injury are reported.

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DISCUSSION

Dr. John L. Garvey (Milwaukee): I am glad you chose Dr. Hammes to be our guest at this session. Dr. Hammes has covered the subject of spinal cord injuries very well in outline form, and has called attention particularly to some very interesting cases.

I think one should point out that in determining the nature of the lesion, frequent and complete neurologic examinations are an important factor in the proper handling of the case. Without early neurological findings of a complete character, it is sometimes very difficult to interpret changes that occur.

The Doctor has called attention to and shown a diagram of the spine in a group of cases which seem to be attracting a great deal of attention, protrusion of nucleus pulposus, giving definite neurological findings.

We have had in Milwaukee, in the last three years, three very interesting cases, and I am going to relate briefly some of the important features about these cases, because we have believed they fall into this group.

The most interesting feature about these three cases was that in each of the cases the injury was of a somewhat similar character. There was no direct trauma to the spine, but all of them occurred following a very severe strain. One man was attempting to raise a pick-up box off a Ford truck. He was not accustomed to doing hard work, and, in order to get it off, he exerted considerable strength, and had to lift it from a very peculiar angle.

Another was attempting to take off a fly wheel. He was bending forward and slightly to one side, using a crank, and gave it a sudden jerk.

In the third case, a man was turning over a casting weighing about 250 pounds.

In the first case, the first symptom noted was a severe, sharp pain in the middle back and for two weeks after this he was troubled with pains in his back and some disturbance in his lower extremities but not of a marked degree until about two weeks afterward. In getting out of the bath tub, with his awkward lowers, he developed a more extensive paralysis, and, following a spinal puncture, one was able to demonstrate a bloc in the spinal canal with xanthochromic fluid below the second lumbar region.

In the second case, the spinal puncture showed a dry tap between the third and fourth and fourth and fifth but normal spinal fluid between the second and third.

The third case showed no evidence of spinal bloc. The last two cases developed the paralytic phenomena within a short time after the strain. Both of them were able to walk a short distance one about two blocks and the other to walk home, a distance of about a mile. But immediately following the strain both described a peculiar sensation going down the posterior aspect of both legs. One of them said he felt as though hot blood were running down the back of his legs.

The first case which was operated has improved considerably. While he was bedridden before the laminectomy he writes he is walking a matter of miles each day. The other two were not operated, refused operation, a decompression laminectomy, and have not improved to the same degree.

SUMMARY OF REGIONAL ILEITIS

The case that A. J. Rosenblate, A. A. Goldsmith and A. A. Strauss. Chicago (*Journal A. M. A.*, May 23, 1936), report shows a typical clinical and roentgenologic picture of regional ileitis, with added involvement up to but not including the distal portion of the transverse colon. The patient had been previously treated for four years for subacute bacterial endocarditis (despite negative blood cultures) and renal disease. The picture of regional ileitis is that of dull pain in the right lower quadrant, low grade intermittent fever, slight diarrhea, anorexia, anemia and rapid pulse. Roentgenologic studies of the ileum reveal characteristic manifestations. In cases in which the pathologic condition extends to the colon, the authors suggest the term "ileocolitis ulcerosa chronica." The treatment of choice is surgery.

Fever Therapy in Tabes Dorsalis, Multiple Sclerosis and Dementia Paralytica

By EDWARD D. SCHWADE, M. D.
Milwaukee

BEFORE the advent of diathermy many methods were attempted applying the use of fever therapy to such chronic diseases as tabes dorsalis, multiple sclerosis, dementia paralytica and Parkinson's disease. Plant and Steiner attempted relapsing fever, while Berk, Clay and Theiler used rat-bite fever for inducing pyrexia. Later, foreign protein, hot air, typhoid and electric currents were used with varying amounts of success. Sulphuric acid in oil has even been attempted for inducing pyrexia. However, until recently, malaria therapy has been most successfully used and reported by many workers as most beneficial. At the Milwaukee County Hospital, we have been using this form of therapy for the past two years with the same general amount of success as reported by other writers, but, we have found that there still persist certain disadvantages to this method amongst which the following are the most serious:

1. There still exists a mortality rate of from five to eight per cent.
2. There are complications that arise from malaria itself, and these are not amenable to treatment.
3. Malaria is a debilitating disease.
4. There are many contraindications to use of malaria, and advanced cases do not respond at all.
5. There are many individuals who are immune to the disease.
6. Patients treated with malaria require considerable nursing care and prolonged periods of hospitalization.

Although the installation of the diathermy department is recent at the Milwaukee County Hospital, and the number of cases far too few to have any positive conclusions, we have been able to compare this method with the malaria therapy in the manner of a control.

We have observed that the patient undergoing pyretotherapy does not complain as bitterly of the course of treatment as does the subject of malaria. The temperature is more easily controlled as has already been mentioned. The patient does not require nearly as much nursing care, and hospitalization is not entirely necessary. Thus far the mortality rate is negligible and there have been reported no complications. It is also of particular importance to note that all individuals are susceptible to the pyrexia, so that it is apparent that from the standpoint of the patient this appears to be the method of choice.

Thus far we have treated only with tabetics, dementia paralytica and multiple sclerosis and the following are our observations:

1. *Tabes Dorsalis.* Most remarkable was the fact that visceral crisis disappeared after the first diathermy treatment. Patients who had to be carried to the diathermy apparatus because of excrutiating pain were able to walk and complained no longer of their pain. The majority of cases in which there was present spastic ataxia responded in varying degrees—depending upon the length of time, the condition that was present. One patient in particular, a young male, aged 22, diagnosed as meningo-myelitis of uretic origin responded spectacularly. Carried into the hospital, unable to walk, the patient complained of blurring of vision and difficulty in articulation. After 30 diathermy treatments, he was able to walk, talk with perfect articulation and read very well. The spinal fluid, Wassermann and Kline were 4 plus at the beginning of the treatment. After 30 treatments the Wassermann became negative, the Kline one plus, and the colloidal mastic negative.

2. *Dementia Paralytica:* These cases responded very well to the diathermy. The cases treated were early, and in all cases there was improvement in cerebration. In this group there was a female patient, age 47, who beside the mental changes also com-

plained of blurring of vision. This patient also had a remarkable recovery of her vision after four diathermy treatments. One patient diagnosed as taboparesis responded to both conditions remarkably well. The patient, a white female, aged 42, had the symptoms of early paresis in conjunction with tabetic findings. She was markedly euphoric and grandiose, and the history was quite typical of early paresis. She further complained of stumbling and pains in the legs. Neurological examination confirmed the diagnosis. After 20 treatments the mental condition of the patient evidenced marked improvement, the euphoria and dullness disappearing. The serology became negative and she was able to walk with considerable improvement. In one case we noted marked improvement in a patient who had tabetic bladder.

In all these patients, tabetic, general paralysis or the combination, we found that there were definite changes in the spinal fluid and blood. The Wassermann and Kline were altered in all cases, many becoming entirely negative. The colloidal mastic was always altered and the cell count and globulins always decreased.

3. Multiple Sclerosis: These patients appeared to be more resistant to treatment compared to the luetic group, but responded better than any other form of therapy attempted at this hospital. In several cases there were transient remissions occurring during the course of the treatment, and in one case enough improvement to allow the patient to return to his former occupation. Whether the group is too small to consider, or that multiple sclerosis does not respond well to any form of therapy, we are, as yet, at a loss to state. The literature also revealed that other workers with the diathermy make the same observations.

We understand the physiological changes accompanying the rise in temperature in malaria, but what happens to the patient receiving a diathermy treatment? This is greatly a matter of conjecture but perhaps the most logical explanation is that offered by King. When heating currents are passed through the highly vascular tissues of the chest and abdomen, the temperature in these regions is elevated. After the heated blood reaches the heat regulatory centers of the brain, there is an attempt to cool the blood through the cerebral regulatory mechanism. This results in marked dilatation of all peripheral vessels, the skin becomes hyperemic and sweating is profuse. Dissipation of heat is prevented by body inoculation so that the blood returns at a still higher temperature, only to be reheated and once again recirculated. After the pyrexia increases, it is accompanied by a concomitant increase in metabolism, and this further assists in the production of heat. This latter is evidenced by a persistent rise in temperature even after the current is shut off. The entire mechanism is somewhat a recapitulation of the chain of events occurring in infectious disease characterized by pyrexia.

We realize that something must happen to produce the changes noted after the course of diathermy. What happens to the blood and spinal fluid? What causes the changes in serology? Does the heat stimulate the formation of immunological bodies? Does the heat melt the chronic inflammatory tissue produced by these diseases? It is to be hoped that the success thus far attained by this form of therapy does not produce the hysteria caused by each new form of therapy. The procedure is in its infancy, there are yet many problems and questions unanswered. Only diligent study and observations including physiological pathological study of the changes observed clinically will bring about definite light on this case.

WATERHOUSE-FRIDERICHSEN SYNDROME

E. E. Aegerter, New York (*Journal A. M. A.*, May 16, 1936), adds a case of his own and one case from the records of the Willard Parker Hospital which in history, symptomatology and pathology give the typical characteristics of the Waterhouse–Friderichsen syndrome. The syndrome was first accurately described in the literature in 1901. Since that time it has been recognized in England and Germany as a disease entity. The symptomatology includes sudden onset, malaise, restlessness, and often gastro-intestinal symptoms. These are followed shortly by lethargy, which rapidly deepens into coma. High fever, weak, rapid pulse, intense cyanosis and purpuric hemorrhages into the skin are characteristic. The disease is usually fatal in from sixteen to twenty-four hours. Massive, bilateral adrenal hemorrhage is the most common postmortem observation. The etiology is probably a fulminating meningococcemia. Suggested therapy includes adrenal cortex extract, epinephrine, sodium chloride, fluids, antimeningococcus serum, dextrose and transfusions.

Tularemia: Etiology, Diagnosis and Treatment*

By S. B. PESSIN, M. D.
Madison

IN THE light of recent events concerning tularemia, I find it necessary to briefly review the disease in a pedagogic fashion. The advent of specific antitularemic therapy and prophylaxis has not received its deserved attention. The recent discovery that Bacterium tularense is a highly pleomorphic motile organism is almost unknown to the medical profession. The reports of many new animal hosts and insect vectors, the increasing geographical distribution of the disease and the potentialities of sectional epidemics render this subject a highly important public health problem.

Tularemia is primarily an acute fatal bacteremia of wild rodents caused by Bacterium tularense; secondarily it is an acute specific disease of the human being transmitted to him from wild rodents by biting insects or by contact with infected animals, insects and objects which the infected animals and vectors contaminate.

Forty-five states have reported the disease in our country. Tularemia has not been reported by Connecticut, Maine and Vermont.[1] Tularemia is quite current in Japan and Russia. Canada, Sweden, Norway, Finland and Tunis (North Africa) have recently reported the disease.

Tularemia is endemic throughout the country but may become epidemic in certain communities. Tularemia became a reportable disease in Wisconsin late in 1928 and since then Wisconsin has contributed between 4% to 5% of all cases reported to the United States Public Health Department. One hundred and ninety-three cases have been reported in Wisconsin up to January, 1935. During the last eleven years (1924 to 1935) 5,411 cases have been reported to the United States Public Health Department. The mortality in Wisconsin is 5.7% and for the entire country it is 4.8%.

TULAREMIA IN WISCONSIN

	Cases	Deaths
1928	5	0
1929	5	1
1930	15	1
1931	27	1
1932	42	4
1933	54	3
1934	45	1
Total	193	11

Mortality 5.7%

TULAREMIA IN UNITED STATES[2]

	Cases	Deaths
Previous to 1924	15	2
1924, 1925, 1926	308	11
1927	251	10
1928	350	10
1929	462	36
1930	659	37
1931	675	32
1932	933	41
1933	892	33
1934	881	48
Total	5426	260

Mortality 4.8%

Bacterium tularense is a motile[3, 4] highly pleomorphic gram negative organism occurring in coccoid and rod forms. Attenuated cultures are mainly coccoid and possess little or no motility. Fresh cultures, particularly after passage through susceptible animals, are mainly rods having a marked motility. The motility is slower than that of Cholera Vibrio but much greater than the motility of Eberthella Typhosa. It does not grow on ordinary laboratory media. It passes through a Berkefeld filter which holds back staphylococci. An inoculation with as little as one ten millionth of a cubic centimeter of Bacterium tularense suspension will kill rabbits and guinea pigs. It resists freezing and drying. Rabbits frozen for three weeks are infective. It resisted drying in bedbug feces for twenty-six days[5].

SOURCE OF INFECTION

The main source of infection is from handling diseased wild rabbits and from the

* From the Departments of Clinical Pathology, State Laboratory of Hygiene and of St. Mary's Hospital.

bites of insect vectors particularly the ticks and deer flies. Cases have been reported in which the sheep, fox, rat, ground squirrel, tree squirrel, ground hog, opposum, coyote, skunk, hog, dog, cat, grouse and quail have been incriminated. Scratches from barbed wire, pricks from burrs removed from sheep and scratches by briars from a garden[6] have infected three patients with primary cutaneous tularemia. Lice, flies, ticks and fleas transport Bacterium tularense from animal to animal. The wood tick should be considered as the most dreaded insect vector because it is a permanent reservoir for Bacterium tularense. The wood tick carries Bacterium tularense throughout its span of life and transmits the organism to its offspring. No conclusively proved instance of spread of the disease from man to man has been observed. A case has been reported in which a mother was supposed to have been infected as a result of pricking her thumb while dressing a tularemic ulcer of her son who was bitten by a deer fly[7]. Another case was thought to have been infected from the bite of a fly which had previously had access to purulent exudate from a tularemic patient[8].

In a large majority of infections Bacterium tularense enters the body through a traumatized area. However, it has been conclusively demonstrated that the organism can penetrate the intact skin, oral mucosa and conjunctiva without precipitating a local lesion. Eating insufficiently cooked meat of infected rabbits has produced gastro-intestinal tularemia. It is now believed by some that inhalation (droplet infection) may cause pulmonary tularemia. The usual foci of infection occur on the fingers, palms, and conjunctiva after handling infected rabbits. Insect bites have caused lesions to appear on almost any external surface of the body.

PATHOLOGY

The primary focus of infection in the skin develops into an erythematous papule. As the lesion enlarges the dermis and subcutaneous tissues undergo necrosis. The necrotic plug sloughs leaving a punched-out ulcer. The lymph nodes draining the infected area rapidly enlarge, pass through a long stage of caseation necrosis and often suppurate. Ophthalmic tularemia begins as a severe acute conjunctivitis and at the height of the infection is transformed into a peculiar yellowish nodular and ulcerative conjunctivitis.

A study of twenty-two necropsies has disclosed that tularemia in man is very often a severe bacteremia. Bacteremia undoubtedly occurs as a result of lymphogenous transportation of Bacterium tularense into the blood stream after the drainage from the diseased tissues has emptied into the cisterna chyli, thoracic duct or right lymphatic duct. There may be a direct outpour into the blood stream due to necrosis of blood vessels. Multiple foci of necrosis develop in the lungs, liver and spleen. Pulmonary lesions have been described as miliary tubercles, multiple foci of necrosis, bronchopneumonia, confluent lobular caseous pneumonia and lobar pneumonia. Abscesses and cavitation have also been found. Lesions have been described in the peritoneum[8, 9], meninges[10], brain[11], adrenal glands[12], pericardium[12], kidneys[13], buccal mucosa[12], tongue[12], stomach[14], duodenum[14], ileum[14] and caecum[14]. Histologically, the typical tularemic lesion consists of a peculiar caseation necrosis surrounded by a scanty or moderately cellular organization which in some respects is similar to caseous tuberculosis.

SYMPTOMS AND COURSE

The incubation period ranges between twelve hours to ten days. The usual incubation period is three to four days.

The clinical manifestations of tularemia consist of an array of constitutional symptoms that vary in degree and often appear before the focus of infection becomes structurally characteristic. The constitutional symptoms may usher in quite suddenly even while the infected individual is at work, and are manifested by headache, general malaise, weakness, fever, chills, sweating, arthralgia, myalgia, and prostration. Other not uncommon general symptoms are vomiting, abdominal pains, diarrhea, psychic disturbances, delirium and collapse. Constitutional symptoms may be severe or mild but never absent. The fever very often is quite characteristic. There is an initial rise 103° to 105° which

lasts one to three days, a remission lasting one to three days and a secondary rise to the original height. The febrile period lasts two to three weeks and sometimes longer.

A classification of the clinical types of tularemia is difficult to formulate. Francis[15] described four clinical types: (1) ulcero-glandular, (2) oculoglandular, (3) glandular and (4) typhoidal. Various reasons, which in this review are not essential to elucidate, have caused me to adopt Kavanaugh's[8] classification: (1) primary cutaneous tularemia, (2) primary ophthalmic tularemia and (3) cryptogenetic tularemia.

Primary cutaneous tularemia. About two or three days after onset very often before the patient is aware of the developing primary focus of infection the lymph nodes draining the site of inoculation become painful, tender and enlarged. The initial lesion appears three to seven days after inoculation. It occurs usually on the hands or fingers and is first noticed as a painful, erythematous papule or a pustule which soon enlarges, breaks down, liberates a necrotic core, and leaves a punched-out ulcer one to two centimeters in diameter. Tularemic ulcers are usually very sensitive. The skin overlying the enlarged lymph glands is red and tender. The redness of the skin may be continuous to the primary lesion. In other instances red streaks lead from the primary lesion to the lymph glands. Subcutaneous nodules resembling sporotrichosis occur in about 15% of primary cutaneous tularemia. The lymph glands suppurate in about 40% of the cases and in the remaining cases they persist firm and palpable for two to three months.

Primary ophthalmic tularemia. Bacterium tularense localizes in the conjunctival sac. The early subjective symptoms are itching, lacrimation, photophobia, pain and swelling of the eyelids. The above symptoms are accompanied by painful and tender, parotid, preauricular, submaxillary and cervical lymphadenopathy. The axillary lymph nodes are involved in severe cases. The characteristic lesions of the conjunctiva usually develop after lymphadenopathy has appeared. Small discrete yellowish elevations appear on the hyperemic conjunctiva of both lids. The yellow nodules slough and leave minute punched-out ulcers. The duration of the conjunctivitis lasts three to five weeks. The ocular infection occurs unilateral in 85% of the cases.

Cryptogenetic tularemia. This is the type of tularemia in which the portal of entry of Bacterium tularense cannot be determined because external lesions are absent. The onset, clinical manifestations and duration are the same as for other types. The so-called typhoid type of tularemia usually occurs in this group.

Tularemic pneumonia may be encountered in any of the three types; in the primary cutaneous and ophthalmic types it is indicated as a complication but in the cryptogenetic type it may be primary. Several excellent contributions on tularemic pneumonia recently appeared in literature[16, 17, 18, 19, 20, 21, 22, 23, 24]. The authors of these contributions have stressed the atypical clinical picture of tularemic pneumonia but few have emphasized that the pulse is usually remarkably slow in proportion to the fever and the leukocyte count may be either normal or slightly elevated but rarely as high as in pneumococcic pneumonia. Tularemic pnuemonia may develop on the second day after onset or as late as the sixteenth day. It may precede the appearance of lymphadenopathy.

Intestinal tularemia which is usually due to eating improperly cooked rabbit[14, 25] mimics typhoid fever. It is ushered in with pain in the abdomen, vomiting, diarrhea and fever.

Cutaneous eruptions are present in 15% of all types of tularemia. They appear usually on the second or third week and last from a few days to a month. The eruption may be macular, papular, vesicular, pustular or any combination of the preceding. Sometimes the eruption is painful but usually it is painless and does not itch.

DIAGNOSIS

A diagnosis of tularemia can be easily rendered when the classical clinical picture is present and when there is a definite history of contact with wild rabbits, ticks or flies. The diagnostic pitfalls occur in cases where the signs and symptoms deviate from the usual clinical manifestations and where no

definite etiological information can be obtained from the patient. Thus internists and surgeons have erroneously diagnosed this disease as influenza, typhoid fever, septicemia, subacute bacterial endocarditis, miliary tuberculosis, cholangitis, cholecystitis, appendicitis and peritonitis. The dermatologists have diagnosed the tularemic skin eruptions as sporotrichosis, herpes, erythema-multiforme, acne, anthrax and syphilis. Ophthalmic tularemia has been diagnosed as Parinaud's conjunctivitis, tuberculous conjunctivitis and necrotic infectious conjunctivitis.

Tularemia must always be suspected in patients who are market men, farmers, hunters or cooks. Tularemia must be potentially incriminated in cases of rapid development of painful enlarged lymph nodes, prolonged fever and atypical pneumonia. Perhaps no other disease causes such rapid glandular enlargement in such short time.

When tularemia is suspected, the following diagnostic aids should be at once employed:

1. Intradermal skin test of killed Bacterium tularense: skin tests in tularemia are positive as early as the third day whereas agglutinations are never positive before the second week and in some instances not until the third week. Any type of inflammatory response at the site of intradermal injection is considered positive.

2. Cultures on cystine agar: Bacterium tularense has been successfully cultured from primary ulcers, lymph nodes, blood, sputum, pleural effusions, pericardial fluid, ascitic fluid and spinal fluid.

*3. Guinea pig inoculations: this procedure is far better than cultures because it rules out contaminants. Guinea pigs die within three to six days after subcutaneous or intraperitoneal inoculation. Postmortem reveals miliary necrotic foci in the liver and spleen.

4. Agglutination test: this is the most reliable diagnostic aid. However, agglutinins rarely appear before the tenth day, and sometimes not until the third week. Therefore, since the best results with serum therapy are obtained when the antiserum is given early, intradermal tests and guinea pig inoculations as early diagnostic aids are strongly recommended. Bacterium tularense cross-agglutinates with B. abortus and B. melitensis. When the laboratory report shows positive agglutinations for tularemia and undulant fever, the organism showing agglutination in the highest dilution (titre) is the one that should be incriminated.

Tularemia has a low mortality but its average duration is long. Convalescence is slow and it is rather rare to see an individual at work at the end of a month. The convalescent are usually incapacitated for several months and some are not entirely well at the end of a year or even longer. During convalescence the patient may have recurrent attacks of fever, sweats, sudden attacks of extreme weakness, arthralgia, myalgia and recurrent glandular enlargement. Fever may recur as late as ten months and lymph nodes have suppurated as late as two years after onset. Therefore chronic tularemia is not a myth.

TREATMENT

Prophylaxis: There is no way of irradicating the disease or preventing its spread among wild rabbits. The potentialities of infection will constantly remain with us. We must educate the public to handle wild rabbits properly. Rabbits should be dressed with gloved hands and utmost care should be used to avoid wiping the eyes, nose or any other part of the exposed body surface. If gloves are not available the hands should be frequently dipped in water and no blood should be allowed to dry on them. Thorough cooking of infected rabbit meat will render it safe for consumption. Market men and hunters should be immunized[26]. Rabbits found dead should be burned and no other animal allowed to come in contact with them. One must be aware that the organs of a rabbit during the first two days of infection will grossly appear normal. On the third day miliary greyish-white or yellowish-white tubercles will be visible in the spleen and liver.

(Continued on page 492)

* Animal inoculations are not without danger and most of the directors of laboratories will not perform this diagnostic procedure. However, the method is free from danger if the animals are isolated and if the laboratory worker uses utmost caution or, preferably, if the worker has been immunized.

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« « « EDITORIALS » » »

The Council on Pharmacy and Chemistry

IN THE Journal of the American Medical Association for April 25, 1936, the reports of Sandweiss, of Martin, and of the Council on Pharmacy and Chemistry would seem to bring to a close another of the recurrent dramatic episodes of mass psychology in the history of the so-called treatment of peptic ulcer.

Such group reactions occur in the medical profession as well as in other groups of individuals. They are, perhaps, a sequence of unsatisfactory results, which, in turn, are probably due to a lack of knowledge concerning the underlying causes of the disease or of the condition.

Consistent and continued unfavorable results, in time, cause discouragement and the reactions of "grasping at straws"; "hoping against hope"; "wishful thinking." When reason fails, emotion gains the ascendancy and the latter is augmented by such potent agencies as: The written word (printer's ink in all of its modifications); the spoken word (reinforced by the omnipresent radio); and "pictures" (still and in motion).

A perusal of the "literature" promoting the sale of these various "new" methods of treatment (17 are listed) should automatically produce a healthy skepticism in the mind of anyone, even faintly, familiar with the underlying principles of gastrointestinal function.

Many "case reports" are but modified so-called "testimonials" and leave much to be desired in the matters of diagnosis, follow-ups and controls, and are so obviously one-sided as to forbid serious consideration.

The general employment of such untried, unconfirmed methods of treatment is to be deplored, especially those calling for parenteral administration. In oral medication the wisdom of the body may reject, neutralize or fail to absorb deleterious material, but after injection the reactive, protective mechanism may possibly have serious, instead of supposedly favorable, consequences. There are proper places (the teaching centers) for such clinical experimentation.

Widespread use of new and unauthenticated so-called remedies might serve as an indictment of some of the results of our educational system. But the universality of the practice creates a familiarity that minimizes such a significance.

NINETY-FIFTH ANNIVERSARY MEETING

Memorial Union Building, Madison :-: September 8, 9, 10, 11, 1936

In the particular matter under discussion, that of peptic ulcer and its treatment by the parenteral injection of the amino-acid histidine, one finds that the fundamental premise—that peptic ulcer is due to a histidine deficit—has not been confirmed.

Instead of hurried clinical application, the more rational procedure would seem to call for an investigation and acceptance of such an etiologic concept before instituting a therapy that will be time-consuming, expensive and of questionable value.

It is generally accepted that peptic ulcer is due not to a single cause but to different factors, namely: (1) chemical, (2) mechanical and (3) susceptibility.

Treatment has usually aimed at reduction of gastric acidity, but histidine injection increases the secretion of HCl; consequently there is a theoretical possibility that such treatment may be inadvisable.

The formation of antibodies (anti-histamine or histaminase) might, by antisecretagogue action, reduce HCl secretion but gastric analyses, after histidine injection, fail to reveal such antibodies.

If careful pre-clinical study had been given to the new method, the theoretical defects would, in all probability, have led to the same conclusion (rejection) as have the clinical trials.

It seems that the final, rational treatment of peptic ulcer will, perhaps, be in the development of some type of antisecretagogue that does not have objectional other actions.

The experimental development of "enterogastrone" by Ivy is the most promising research along this line, but unwarranted conclusions have not been drawn and clinical application of experimental results is wisely awaiting more careful study.

The results reported demonstrate the practical usefulness (to both the profession and the public) of the Council on Pharmacy and Chemistry.

The officers of the American Medical Association are to be congratulated upon its origin and successful conduct.

The formation of a similar council for the discussion, rejection or acceptance of "new" surgical measures in this and in other diseases would probably be equally valuable, and is plainly called for. F. G. C.

Medicine Marches On

BASED upon the report of the State Board of Health for the first nine months of 1935, Wisconsin has decreased both the incidence and the death rate from certain communicable diseases, specifically diphtheria, smallpox and typhoid. Never before in the history of Wisconsin has the death rate from these diseases been so low.

The incidence of some other diseases reportable to the State Board of Health, however, has increased. It is noted that those diseases that are spread by nose and mouth secretions have the greatest degree of increase. During the last three years the incidence of scarlet fever and measles has tripled and mumps has more than quadrupled. Other respiratory infections also demonstrated an increase.

In the minds of the lay public the early symptoms of all these diseases are regarded as "just another cold." Every physician recognizes the fact that the incidence of respiratory infections can be reduced by isolation. If the general public can be made to appreciate the social significance of the "common cold", the loss to Society would be greatly reduced.

It is the particular obligation of the profession to acquaint the public with the seriousness of the "common cold." The conse-

quences of mingling in public with a nose or throat infection, regardless of its severity, should be impressed upon each individual patient. A significant contribution toward the improvement of the public health will be made by each physician who so advises his patients.

We Are Honored

WISCONSIN comes from the Kansas City meeting of the American Medical Association with three national officers to the Woman's Auxiliary to the American Medical Association. In the Auxiliary section of this issue will be found a full report of their meeting at Kansas City and the inaugural address of Mrs. Robert E. Fitzgerald of Wauwatosa, presented upon her induction to the presidency. Every physician should read this address. It presents in a few words the need and high aims of our Auxiliary.

In a sense, all of Wisconsin shares with these new national officers the obligation and the privilege of furthering this important ancillary during the twelve months to come. And in no better way can we show our own appreciation of the honors bestowed upon us than by furthering the organization in our own state and assisting those units already organized to carry forward their worthy projects. Every county society in Wisconsin should have its Auxiliary. The need becomes increasingly evident with the passing of each succeeding year.

Nursing Safeguards

THE hospital on the campus of the University of Minnesota has recently adopted a procedure in respect to the diagnosis of tuberculosis which will be watched with interest by internists and phthisiotherapists throughout the United States. Whether or not it will be considered of enough practical value to lead to its adoption in the mine-run of general hospitals—or even in those conducting nurses' training schools — remains for the future to determine. But that the large amount of tuberculosis developing among nursing students in training, meantime, constitutes a reason for even costly research investigations there can be no question.

The Minnesota plan is based on the thesis that many infectious cases of tuberculosis pass through our hospitals unsuspected of being carriers and spreaders of the disease to their innocent and unsuspecting attendants. It is proposed therefore that in this hospital, henceforth, they shall not sail along on blind reckoning.

The procedure is simple enough. It consists merely in the transposition of the technique which is quite rapidly growing in popularity in the high schools and colleges of Wisconsin and the nation. Routine tuberculin testing and x-raying of reactors in all admission cases regardless of diagnosis or suspicion of whatever other condition the patient may have. When x-ray interpretations indicate, the more intensive and refined laboratory and clinical studies will be employed to learn whether the patient has tuberculosis. That the procedure will clear up an occasional diagnosis that would otherwise have been slipped, is quite likely and may be resultful enough in this direction to warrant so simple a routine practice.

Meantime, there is a lag in too many Wisconsin hospitals in the matter of discovering just which nurses harbor tuberculosis in a minimal, if not more advanced, stage of the disease. How and where they may have contracted it, and how such sources can be shut off is most important, but it is more important to know when and if they have it and to institute measures to repair the damage so far as possible. Prevention is unquestionably better than cure; but early treatment of our daughters who have incurred tuberculosis in the course of their hospital work would seem to be one of those groundhog cases of obligation from which there is no moral escape and for which there should be no cover-up. Training school authorities that cannot provide this modicum of protection should close shop. H. E. D.

Society Proceedings

BROWN-KEWAUNEE-DOOR

The regular May meeting of the Brown-Kewaunee-Door County Medical Society was held at Sturgeon Bay at the Swoboda Hotel on May 12.

Dr. F. C. Walch of Clintonville presented his illustrated talk on "The Great Pyramid."

DOUGLAS

Members of the Douglas County Medical Society and of the Ashland-Bayfield-Iron County Medical Society met at the home of Dr. and Mrs. Fred G. Johnson of Iron River on May 13. After the reception, the members adjourned to the Parish Hall where dinner was served.

Dr. F. J. Hirschboeck of Duluth presented an address on "The Nervous Patient" following the dinner.

EAU CLAIRE-DUNN-PEPIN

On April 27 a dinner meeting of the Eau Claire-Dunn-Pepin County Medical Society was held at Hotel Eau Claire. The following program was presented:

"Ten Minutes of Medical News" by Dr. W. R. Manz, Eau Claire.

"Pulmonary Embolism: Its Effect on the Heart and its Clinical Recognition" by Dr. R. A. Barnes, Mayo Clinic, Rochester.

"The Roentgenologic Manifestations of the More Commonly Encountered Lesions of the Large Intestine" by Dr. H. W. Weber, Mayo Clinic, Rochester.

The May meeting of the Society was held on the 23rd following an afternoon of golf at the Menomonie Golf Club, Menomonie, after which the following scientific program was presented:

"Ten Minutes of Medical News" by Dr. Iver Stoland, Eau Claire.

"Rectal Abscess and Fistula" by Dr. H. E. Hullsiek, St. Paul, Minn.

"Anatomy and Surgery of the Anterior Vaginal Wall" by Dr. E. C. Hartley, St. Paul, Minn.

GREEN

All officers of the Green County Medical Society were re-elected at a meeting of the Society held in Monroe on May 5. They are: Dr. L. A. Moore, Monroe, president; Dr. E. J. Mitchell, Brodhead, vice-president; Dr. J. F. Mauermann, Monroe, secretary-treasurer.

The meeting opened with a dinner which was attended by twenty-one physicians. Dr. Arnold S. Jackson, Madison, spoke on "The Injection Treatment of Hernia."

A discussion on "Ileitis" by Drs. Harold Marsh, J. Newton Sisk and Arnold Jackson, all of Madison, concluded the meeting.

MILWAUKEE

The largest attendance of the year was recorded at the last meeting until Fall of the Medical Society of Milwaukee County.

The speaker was Dr. Roy D. McClure, surgeon-in-chief of Henry Ford Hospital of Detroit. Dr. McClure's subject was "Artificial Fever Therapy."

A short musical program was presented by the Milwaukee Professional Men's Orchestra, under the direction of Dr. R. O. Brunkhorst, at the conclusion of Dr. McClure's Paper. The program was as follows:

Allegro Vivace from the Twelfth Symphony--Haydn
Adagio Pathetique ----------Godard
Soprano Solo by Mrs. Genevieve Wiley Langley
Les Patineurs ----------Walteufel

The orchestra made an excellent impression and were roundly applauded for their efforts.

ROCK

Dr. Harry Culver, associate professor of surgery, University of Illinois School of Medicine, was the principal speaker before the April meeting of the Rock County Medical Society which was held in Beloit.

Three motion pictures were presented by Dr. H. E. Kasten, Beloit, on the following subjects:

"Modern Methods of Anaesthesia," "Nephropexy" and "Nephrectomy for Tuberculosis of Kidney."

TREMPEALEAU-JACKSON-BUFFALO

Dr. Arnold S. Jackson, Madison, was the principal speaker at the April meeting of the Trempealeau-Jackson-Buffalo County Medical Society which was held in Galesville. Dr. Jackson discussed "The Prevention of Goiter in Wisconsin."

WASHINGTON-OZAUKEE

The regular meeting of the Washington-Ozaukee County Medical Society was held at the "Schwartz" in Hartford on May 7 with a six-thirty o'clock dinner.

Dr. E. K. Steinkopff of Oak Sanatorium, Pewaukee, presented a paper on "Modern Treatment of Tuberculosis" which was illustrated with a number of x-rays.

Dr. P. M. Kauth of West Bend was elected Chairman of the Fifth District meeting which is to be held at Gouring's Resort on Big Cedar Lake the latter part of June.

The final articles of our new venture, the Washington-Ozaukee Professional Bureau, were drawn. R. S. F.

WINNEBAGO

About forty members of the Winnebago County Medical Society held a meeting at Valley Inn, Oshkosh, to hear Dr. M. G. Peterman of Milwaukee, who spoke on the subject of "Muscular Maldevelopment in Children."

FOURTH COUNCILOR DISTRICT

The eleventh annual meeting of the Fourth Councilor District was held in the County Court room at Lancaster, Tuesday afternoon and evening, May 26. The following program was presented:

"State Medicine and the Private Practitioner" by Dr. Ralph M. Carter, Green Bay, President of the State Society.

"Medical Science and the Public" by Dr. Eben J. Carey, Dean, Marquette University School of Medicine, Milwaukee.

"Iritis" by Dr. E. H. Brooks, Appleton.

"Pathology and Its Relation to Surgery" by Dr. Erwin R. Schmidt, Madison.

At six o'clock, a dinner was served to the physicians and their wives as well as members of the Lancaster Kiwanis Club and their wives.

Dr. Arthur W. Rogers, Oconomowoc, was the speaker of the evening at which time he presented his illustrated talk on "A Trip to Mexico."

NINTH COUNCILOR DISTRICT

The annual meeting of the Ninth Councilor District Society was held at Stevens Point on May 7 in the afternoon and evening.

At four o'clock in the afternoon, a medical clinic was conducted at St. Michael's Hospital by Dr. E. G. Bannick, Section on Medicine, Mayo Clinic, Rochester.

Following the dinner at six-thirty, a program consisting of the following papers was presented:

"Determination of Degress of Malignancy as Applied to the Uterine Cervix" by Dr. Paul F. Doege, Marshfield.

"The Physician and the Industrial Compensation Act" by Mr. R. G. Knutson, assistant claims manager, Hardware Mutual Casualty Co., Stevens Point.

"The Treatment of Nephritis" by Dr. E. G. Bannick, Rochester.

Officers elected were: Dr. R. F. Fisher of Wausau, president; Dr. Joseph F. Smith of Wausau, re-elected secretary.

MILWAUKEE ACADEMY OF MEDICINE

Members of the Milwaukee Academy of Medicine met on May 19 at which time the following program was presented:

"The Chemistry and Pharmacology of Mapharsen" by Dr. Arthur L. Tatum, professor of pharmacology, University of Wisconsin.

"Mapharsen in the Treatment of Syphilis" by Drs. O. H. Foerster, H. R. Foerster and L. M. Wieder.

MILWAUKEE DERMATOLOGICAL

Dr. Hamilton Montgomery of the department of dermatology of the Mayo Clinic was the guest speaker at the April meeting of the Milwaukee Dermatological Society.

The title of Dr. Montgomery's paper was "Histopathology of Skin Lesions."

MILWAUKEE SOCIETY OF CLINICAL SURGERY

The May meeting of this Society was held on May 6 at the University Club of Milwaukee. Papers were presented as follows:

"Tuberculous Appendicitis" by Dr. W. J. Carson, Milwaukee. Discussion by Dr. F. Gregory Connell, Oshkosh.

"Management of Deep Infections of the Hand in Patients With Diabetes Mellitus" by Dr. Leland S. McKittrick, surgeon-in-chief, Palmer Memorial Hospital, Boston.

"The Congenital Clefts of the Face and Jaws—A General Discussion of the Problems of Repair" by Dr. Harry P. Ritchie, associate professor of surgery, University of Minnesota, St. Paul.

Discussion by Dr. Henry Olson and Dr. G. V. I. Brown.

MILWAUKEE NEURO-PSYCHIATRIC

The annual meeting of the Milwaukee Neuro-Psychiatric Society was held on May 28 at Rogers Memorial Sanitarium, Oconomowoc. Following is the program:

5:30 to 6:30 p. m.—Tour of gardens.
6:30 p. m.—Dinner.
8:00 p. m.—Dr. Annette C. Washburne, Madison: "Inner Rumblings of a Tired Psychotherapist."

Moving pictures of outdoor life on sea and land in Florida by Dr. Earl Baum of Milwaukee.

UNIVERSITY OF WISCONSIN

At a staff meeting of the Wisconsin General Hospital on May 5, three physicians from the department of orthopedics, presented the following papers:

"Perthe's Disease" by Dr. R. E. Burns.

"The Triple Arthrodesis; Its Various Applications in Foot Conditions" by Dr. H. W. Wirka.

"The Significance of the Lumbosacral Joint Alteration as a Cause of Low Back Pain" by Dr. R. P. Montgomery.

At the May 19 staff meeting, a symposium on "Allergy" was presented as follows:

"The Present Status of Allergy" by Dr. W. A. Mowry.

"The Digestive Aspect of Allergy" by Dr. H. C. Bradley.

"Angioneurotic Edema of the Central Nervous System and Allergy" by Dr. Mabel G. Masten.

Dr. Joseph S. Evans, professor of medicine, University of Wisconsin Medical School, presented an address on "The Art of Medicine" before the Medical School Convocation held on May 28.

The Woman's Auxiliary

President—
Mrs. F. Gregory Connell, 420 Washington Blvd., Oshkosh
President-Elect—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
Secretary—
Mrs. Theodore J. Gunther, 2117 N. 8th St., Sheboygan
Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine
Public Relations Chairman—
Mrs. Arthur J. Wiesender, Berlin
Program Chairman—
Mrs. Ralph M. Carter, 622 S. Webster Ave., Green Bay
Hygeia Chairman—
Mrs. Harold M. Coon, River Pines Sanatorium, Stevens Point
Organization Chairman—
Mrs. Arthur Sullivan, 930 E. Gorham St., Madison
Archives and Historian—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
Press and Publicity Chairman—
Mrs. Earle F. McGrath, 429 W. 6th St., Appleton
Parliamentarian—
Mrs. Robert E. Fitzgerald, 1739 69th St., Wauwatosa
Chairman of Nominating Committee—
Mrs. Arthur J. McCarey, 902 S. Madison St., Green Bay

Mrs. Robert E. Fitzgerald Installed as National President; Mrs. Eben J. Carey Re-Elected Treasurer

WISCONSIN is now honored by having three national officers of the Auxiliary.

Mrs. Robert E. Fitzgerald, Wauwatosa, was installed President of the national body at the concluding general session on Thursday, May 14. At the same session Mrs. Eben J. Carey, for the second time, was re-elected national Treasurer. Mrs. J. Gurney Taylor, Milwaukee, has been named Corresponding Secretary, a position she will occupy throughout Mrs. Fitzgerald's administration. A fourth member of the National Board from Wisconsin is Mrs. F. Gregory Connell of Oshkosh who holds office as President of the Wisconsin Auxiliary.

The President's report of the Kansas City meeting follows, and it is to be noted that a large increase in membership was reported to the national membership which now exceeds 16,000.

Other national officers elected at the concluding meeting were the following: President-Elect, Mrs. Augustus Kech, Altoona, Pennsylvania; First Vice-President, Mrs. David S. Long, Harrisonville, Missouri; Second Vice-President, Mrs. Prentiss Wilson, Washington, D. C.; Third Vice-President, Mrs. Phillip S. Doane, Pasadena, California; Fourth Vice-President, Mrs. Martin J. Nordland, Minneapolis, Minnesota; Recording Secretary, Mrs. C. C. Tomlinson, Omaha, Nebraska.

New directors include Mrs. Rogers N. Herbert, the retiring president; Mrs. Arthur J. Kasselman, New Jersey; Mrs. James A. Downing, Iowa; Mrs. John O. McReynolds, Texas; Mrs. Herbert E. Mantz, Kansas City; Mrs. Rollo K. Packard, Illinois and Mrs. Fletcher J. Wright, Virginia.

GREETINGS FROM PRESIDENT FRANKLIN D. ROOSEVELT

The White House
Washington

May 6, 1936.

My dear Mrs. Herbert:

To the Woman's Auxiliary to the American Medical Association I send my warm personal greetings.

For a number of years and from many parts of the country has come word of your splendid educational and humanitarian accomplishments. I have been particularly impressed by your endowments of hospital beds, by your aid to children through the establishment of preventoria, schools for the handicapped, and the support of orthopaedic wards. These and your other numerous and varied activities constitute a record of achievement of which you may well be proud and betoken well the loyalty and devotion to the cause of humanity that one might expect from the members of doctors' families.

Very sincerely yours,
FRANKLIN D. ROOSEVELT.

Mrs. Rogers N. Herbert,
President, Woman's Auxiliary to the American Medical Association,
Baltimore Hotel, Kansas City, Missouri.

Wisconsin Registration in Kansas City

Andrews, Mrs. M. P. — Manitowoc
Bach, Mrs. James A. — Milwaukee
Beeson, Mrs. H. B. — Racine
Carey, Mrs. Eben J. — Milwaukee
Connell, Mrs. F. Gregory — Oshkosh
Enzer, Mrs. Norbert — Milwaukee
Ewell, Mrs. G. H. — Madison
Fitzgerald, Mrs. R. E. — Milwaukee
Fletcher, Janet — Salem
Franklin, Mrs. I. — Milwaukee
Ganser, Mrs. W. J. — Madison
Gebhard, Mrs. U. E. — Milwaukee
Gibson, Mrs. H. V. — Fairchild
Henke, Mrs. S. L. — Eau Claire
Jamieson, Mrs. R. D. — Racine
McGrath, Mrs. E. F. — Appleton
Morter, Mrs. C. W. — Milwaukee
Mowry, Mrs. Wm. A. — Madison
Potter, Mrs. R. P. — Marshfield
Reuter, Mrs. M. J. — Milwaukee
Schulte, Mrs. G. C. — Kenosha
Smith, Mrs. L. D. — Milwaukee
Squier, Mrs. T. L. — Milwaukee
Sullivan, Mrs. Arthur — Madison

Report of the Fourteenth Annual Convention

FROM May 11th to the 15th the Woman's Auxiliary spent a most worthwhile and enjoyable time in the heart of America. Kansas City, Missouri, certainly gave us the "Key to the City"—and even the weather man was very careful of our feelings.

The Auxiliary headquarters were in the Baltimore Hotel. We were given very nice rooms for the meetings, and the service was splendid.

The Woman's Auxiliary to the Jackson County Medical Society acted as hostess. They were untiring in their effort to please everybody. They had arranged registration desks in a convenient place in the hotel and the last count I heard 1,150 women had registered. Although there were not that number at any one meeting, the meetings were very well attended.

The first day was entirely filled with the business meetings of the Board of Directors, —Mrs. Rogers N. Herbert presiding—after which all were invited to have dinner at the beautiful Kansas City Country Club. Places were laid for 320.

The regular meeting started off the morning of May 12, with a real southern breakfast at Hotel Baltimore and at 9 o'clock the convention was formally opened with the invocation, address of welcome and the response.

The roll call of states and the names of deceased members of each state were read and followed by a song, "Love Never Faileth."

Following this came the reports of officers and standing committees, and I think every woman at that meeting could not help but feel the very able way the whole was carried on and the great amount of work accomplished and interest taken.

Dr. W. W. Bauer spoke to us and we were charmed with a whistling solo by Mrs. Emsley T. Johnson during the luncheon hour; the afternoon was given over to conferences with leaders of committees presiding.

Tuesday evening everybody went to the opening general meeting of the A. M. A. This was held at Kansas City's new municipal auditorium. The general exhibits which were more or less interesting to the auxiliary were in this same building.

The Auxiliary exhibits of each state were shown at the Baltimore Hotel and were indeed interesting—nearly every state represented the high spots of their work with a map, diorama or scrap book. Wisconsin had her two fine books there and, I think, all states will endeavor to make more of the exhibit next year.

Wednesday morning came the reports of each state.

We now have 41 states organized and the president of a great many responded with a report. The work is similar in all states, but each does it in a way to best suit her surroundings. All try to distribute Hygeia. There were more than 6000 subscriptions sold, 1/10

of total subscriptions, and I was delighted that Wisconsin made second place. Michigan, (which received $1000.00 donation for subscriptions) was first. There were a great many speakers placed before lay groups, and it was very evident that the social side of the Auxiliary has been quite generally given over to more serious things.

Mrs. Samuel Clark Red, the first National President of the Woman's Auxiliary, installed the new officers and again we were honored to have the President, Mrs. Robt. Fitzgerald, and Treasurer, Mrs. Eben J. Carey, both from Wisconsin.

The annual luncheon was held at 1 o'clock, when Dr. James S. McLester, President of A. M. A., and Dr. Morris Fishbein spoke; Mrs. H. Louis Hess gave us one song and the guest speaker was Dr. Perry Bromberg of Nashville, Tenn.

Thursday, Mrs. Robt. Fitzgerald presided at the committee meeting, and at a meeting of the Board of Directors. There was a luncheon at the Woman's City Club and in the evening a "Bring-Your-Husband" dinner followed by the A. M. A. President's reception and ball.

Friday was left for rides, for golf and a look at Kansas City's new Wm. Rockhill Nelson Gallery of Art, or for shopping, and I am very sure that there was not one of the many women there who was not made very happy while at the meeting, and each left with a grateful feeling for the hospitality shown by the hostess.

The one outstanding thought in the meeting, I think, was the necessity of each county feeling its vital part in the State Auxiliary and in turn each State Auxiliary keeping in close touch with the National Auxiliary—for only in this unity can the best be accomplished.

—(Mrs. F. G.) Isabella S. Connell.

Inaugural Address

By MRS. ROBERT E. FITZGERALD

President, Woman's Auxiliary to the American Medical Association, Wauwatosa, Wis.

FOURTEEN years ago in this month of May in this state of Missouri the Woman's Auxiliary to the American Medical Association came into being. How strong our first leaders were is evidenced by the steady and strong growth of our organization in the short time that has elapsed since its inception. We are fortunate in having so many of them with us today to inspire us and to lend their keen judgment and calm counsel when problems arise.

The mention of leaders brings to mind the idea of organization, for leadership presupposes an organization which is to be led. Where there is no unified group there is no leader, for after all a leader must have someone to lead and it is precisely this organization that followed our early leaders, and its importance, that I wish to call to your minds.

We are living in an age that becomes more complex with the passing of each year. The simple life of our ancestors which made them rugged individualists is impossible today, when no man no matter what his strength, can live independently of his fellows. We are all bound up together with a lacing and interlacing of duties, responsibilities—and privileges. However loud may be the demands for isolation no nation in our time has carried through that principle. We are all too closely related to be free of each other, alliances are still too necessary to allow any one nation to stand alone in safety. Within nations organization takes the form of government. Individuals willingly give up certain privileges in the matter of private rights to attain the greater privileges and greater protection of organized government. Down the years progress has been marked by an advance in government that has drawn closer together private and public rights into a harmonious relationship. This planned organization has been characteristic of the nations and institutions which have endured longest and advanced farthest. Following the example of nations, we have groups of

people with common ideals banding themselves together the better to attain their goal. In the field of medicine we have the American Medical Association.

The American Medical Association *is* organized medicine. This body has been able to accomplish much more through concerted effort than would have been possible for each one of its members working alone. Organized medicine as vested in the American Medical Association has made infinitely more progress in the way of safeguarding public health than the isolated efforts of the physicians could ever accomplish. Organized medicine, too, has protected the public from the practices of unscrupulous quacks by furthering legislation preventing the practice of medicine by men not equipped to do so. Moreover, the organization has kept its members up to the highest standards in the practice of medicine, thus benefiting not only the physicians themselves but also the public they are bound to serve.

And we are an auxiliary to this great, united body of men! We have willingly, gladly become subservient (as our name connotes) because we firmly believe in the high principles which underlie the workings of the parent organization. Approximately 16,000 women have signified their desire to serve the profession to which their husbands belong. These women live in thirty-eight states of the Union and in the District of Columbia.

Each state undoubtedly has problems and projects indigenous to itself. Under the guidance of its advisory council each state auxiliary carries on and tries to justify its existence. However varied the activities of the separate units are, basically each group is motivated by the same desire, namely, to aid the medical profession. Obviously then, there must be a clearing house for the different plans, as well as a connecting link to bind the groups together and to direct general policies. This is the role played by the national organization. It is a body formed by the gathering together of all state and local groups and it exists only to serve and advise its component parts. The incoming administration wishes to stress this national organization with the hope that when the separate units realize that each one is an integral part of the national auxiliary the usefulness of that body may be increased.

The second aim of the incoming administration has to do with education. It has been said again and again that we cannot teach others when we ourselves lack knowledge. Repetition does not lessen the truth of this statement. One of our objectives as an organization is to pass on to the lay public the point of view of the medical profession. To do this it is necessary to know that point of view ourselves. It is essential that we be familiar not only with the problems confronting the doctor today but also with the stand taken by organized medicine on these problems. It should be unnecessary to add that this activity on the part of Auxiliary members is in no way concerned with the scientific aspect of the art of healing. Because we feel this matter of self-education is vitally important, we urge again and again that the Auxiliary Department of the Bulletin of the American Medical Association, the magazine HYGEIA, and your state medical journal be read every month. The Auxiliary News Letter, a quarterly publication, is accessible to every member of the organization; in it you will find not only news but inspiration.

Here a word of warning would not be amiss—there is the danger of allowing our enthusiasm to run away with our better judgment. Because of the multiplicity of the problems confronting the medical world and because of the rapid changes in the social order, we must proceed cautiously. Never in the life of our Auxiliary has the approval of projects by our Advisory Council been more necessary than at the present time. It is well to keep in mind always that we are *not* the real leaders in this work but *aids* to leaders. We are first and last an auxiliary organization. However bitterly we may rebel at the idea we, as women, are destined to serve, and life has taught us that our ultimate freedom is commensurate with our *willing* subservience to those stronger than we are.

It is my earnest desire to labor untiringly in this office, but a successful year will be

possible only if every member of the Auxiliary does her share. Without your aid I can expect only failure and so I earnestly bespeak your cooperation with the hope that 1936–37 may shine with the glory of the fourteen years that have preceded it in the history of the Woman's Auxiliary to the American Medical Association.

County News Items

Brown–Kewaunee–Door County

The last meeting of the club year of the Auxiliary to the Brown–Kewaunee–Door County Medical Society was held at the home of Mrs. J. P. Lenfestey, De Pere, on April 23.

Mrs. Arthur J. McCarey, President, Green Bay, spoke briefly on what has been accomplished and thanked the members and all committee chairmen for the support given in carrying out the work undertaken.

The philanthropic project, that of financial support to St. Mary's Infant Home, and the purchase and distribution of "Hygeia," has been accomplished for the year. Work of collecting data on the medical history of the three counties represented in the organization will be carried on by the Medical History Committee during the summer months.

Seven new members were admitted into the Auxiliary this year.

After the business meeting, Mrs. D. B. Dana, Kewaunee, spoke on "English Gardens." She told of her visits to the informal and formal gardens in France, Holland and England on a recent tour abroad and cited many amusing and interesting incidents which occurred on her trip.

At the close of the afternoon, tea was served from a table attractively decorated with candles and spring flowers in a purple and silver color design. Mrs. H. S. Atkinson, Green Bay, was chairman of the social committee which served tea. Mrs. E. M. Jordan supervised at the tea table and was assisted by Mrs. C. S. Williamson, Mrs. W. W. Kelly, and Mrs. E. G. Nadeau; Mrs. J. J. Bellin and Mrs. E. S. Schmidt poured.

Thirty-four members were present.

Dane County

Mrs. Homer M. Carter, 726 Oneida Place, Madison, was hostess to the Woman's Auxiliary to the Dane County Medical Society on May 20. Assisting Mrs. Carter at the one o'clock luncheon were Mrs. Arthur G. Sullivan, Mrs. George Stebbins, Mrs. J. G. Crownhart and Mrs. N. A. Hill.

Original stories were read by Mrs. Walter E. Sullivan. Plans and announcements of committee for entertaining visiting doctors' wives at the annual meeting in September were made.

Mrs. Reginald H. Jackson, Madison, who is Convention Chairman, will be assisted by the officers of the Dane County Auxiliary, Mrs. Homer Carter, President; Mrs. Harold Marsh, President-elect; Mrs. J. G. Crownhart, Secretary, and Mrs. K. K. Amundson of Cambridge, Treasurer.

The following tentative committees were announced:

Hostess Committee at Loraine Hotel:
- Mrs. J. S. Supernaw, Chairman
- Mrs. F. F. Bowman, Co-chairman
- Mrs. Carl Harper
- Mrs. Walter Sullivan
- Mrs. Stanley Briggs
- Mrs. H. L. Greene
- Mrs. Arnold Jackson
- Mrs. J. G. Crownhart
- Mrs. Albert Bryan

Hostess Committee at Convention Hall, Memorial Union:
- Mrs. W. C. Kleinpell, Chairman
- Mrs. A. C. Stehr, Co-chairman
- Mrs. D. C. Atwood
- Mrs. James Dean
- Mrs. C. R. Pearson
- Mrs. I. G. Ellis

Information:
- Mrs. Arthur Sullivan, Chairman
- Mrs. Harry Keenan, Stoughton
- Mrs. John Hurlbut
- Mrs. Robert Wheeler
- Mrs. Herbert Virgin
- Mrs. Stuart McCormick

Publicity:
- Mrs. William Mowry, Chairman
- Mrs. William Lorenz, Co-chairman

Tickets:
- Mrs. K. K. Amundson, Cambridge, Chairman
- Mrs. Benjamin Brindley, Co-chairman
- Mrs. Joseph Dean
- Mrs. N. A. Hill
- Mrs. Lester McGary

Menu:
- Mrs. W. C. Reineking
- Mrs. R. H. Jackson

Registration:
- Mrs. Oscar Friske, Beloit, Chairman
- Mrs. Eben J. Carey, Milwaukee, Co-chairman
- Mrs. Charles R. Bardeen
- Mrs. George H. Ewell

Transportation:
- Mrs. Harold Marsh, Chairman
- Mrs. James Dean, Co-chairman
- Mrs. W. W. Stebbins

Transportation—Continued:

Mrs. T. J. Kroyer
Mrs. M. H. Wirig
Mrs. H N. Winn
Mrs. Joseph Dean
Mrs. Waldo Dimond
Mrs. S. R. Boyce
Mrs. C. G. Reznicheck
Mrs. W. Homer Krehl
Mrs. C. K. Schubert

Flowers:

Mrs. E. L. Sevringhaus, Chairman
Mrs. W. J. Bleckwenn, Co-chairman
Mrs. W. S. Middleton
Mrs. E. S. Thompson, Mt. Horeb
Mrs. R. M. Waters
Mrs. J. Newton Sisk

Entertainment:

Mrs. Homer Carter, Chairman
Mrs. Cornelius A. Harper, Co-chairman
Mrs. J. S. Supernaw
Mrs. Reginald H. Jackson
Mrs. Eugene Neff
Mrs. Albert Bryan
Mrs. H. Kent Tenney

Bridge Luncheon:

Mrs. Eugene Neff, Chairman
Mrs. H. Kent Tenney, Co-chairman
Mrs. Eugene Sullivan

Fond du Lac County

Mrs. J. P. Connell, widow of Dr. J. P. Connell of Fond du Lac, was elected President of the newly organized Auxiliary to the Fond du Lac County Medical Society at a dinner meeting held jointly with the Fond du Lac County Medical Society at the Hotel Retlaw, Fond du Lac, on April 23.

Other officers elected are: Mrs. Ralph G. Mills, President-elect; Mrs. A. M. Hutter, Secretary, and Mrs. L. C. Gardner, Treasurer.

The meeting opened with a brief address by Dr. S. E. Gavin, Fond du Lac, President-elect of the State Society, who pointed out the benefits of an Auxiliary to the Medical Society and expressed the pleasure of the County Medical Society over the organization of the Auxiliary.

Mrs. Arthur G. Sullivan, Madison, State Organization Chairman, spoke on the aims and purposes of the Auxiliary and the plan of organization.

The Arrangement Committee appointed by Dr. R. G. Raymond of Brownsville, President of the Fond du Lac County Medical Society, consisted of Mrs. J. P. Connell, Mrs. S. E. Gavin and Mrs. A. M. Hutter.

The Auxiliary decided to hold its meetings on the same evening as that selected by the County Medical Society.

The organization meeting was attended by thirty-five ladies.

Kenosha County

The Woman's Auxiliary to the Kenosha County Medical Society held a meeting on May 5 at the Kenosha Woman's Club at which time plans were made for the Auxiliary's visit to the State School for the Blind at Janesville and for the June luncheon at the Kenosha Country Club.

At the conclusion of the meeting, the husbands of the members were entertained at bridge.

Manitowoc County

Members of the Woman's Auxiliary to the Manitowoc County Medical Society were sponsors of a benefit card party which was held in April at the Catholic Center in Manitowoc. Twenty-two tables were in play during the afternoon.

Milwaukee County

The Woman's Auxiliary to the Medical Society of Milwaukee County gave a Mother's Day luncheon on Friday, May 8, at the Hotel Astor. There were one hundred and sixty-three members and guests present.

Mrs. John McCabe, Milwaukee, gave a toast to the mothers to which Mrs. Edward J. Burke responded.

Mrs. J. H. Sure, Chairman of the Membership Committee, introduced the following new members: Mrs. David Cleveland, Mrs. Fred H. Kramoris, Mrs. Anthony S. Kult, Mrs. Harold H. Oberfeld, Mrs. Arthur A. Schaefer, Miss Anne Guardaladene (associate) and Miss Josephine Guardaladene (associate).

Anita Willets Burnham gave a very clever travel talk entitled, "Around the World on a Penny."

This was the last regular meeting until October.

Rock County

The Woman's Auxiliary to the Rock County Medical Society held a most delightful meeting at the Hotel Hilton, Beloit, on April 28. The dinner was served in the new dining room in the basement of the hotel.

Mrs. W. W. Crockett, Beloit, Vice-president, conducted a short business meeting in the absence of Mrs. Francis M. Frechette, President, Janesville, who was ill.

The death of Dr. P. A. Fox of Beloit, husband of one of the members of the Auxiliary, was reported and the sympathy of the Auxiliary goes to Mrs. Fox and her family.

The speaker of the evening was Mr. Bernard Hoermann, professor in Lingnan University, Canton, China. His subject was "Living With the Chinese."

Professor Hoermann has spent the greater part of his life in Chinese country and spoke of his personal experiences and contacts with the Chinese as a citizen, friend and neighbor. Professor Hoermann was

born in Watertown, Wisconsin, but went to Honolulu as a child and graduated from Hawaii University. He is at present studying for his doctor's degree in sociology in Chicago University and expects to return to China when he has completed his course. It was a most enjoyable and instructive talk.

Waukesha County

Dr. Arnold S. Jackson, Madison, gave an address on "Goiter" at a public meeting held on May 25 in the Waukesha High School which was sponsored jointly by the Woman's Auxiliary to the Waukesha County Medical Society and the Waukesha Parent–Teacher Association.

Winnebago County

"Mental Hygiene" was the subject of an address by Dr. Robert C. Lowe, of Neenah, when he spoke before the April luncheon meeting of the Woman's Auxiliary to the Winnebago County Medical Society at Hotel Menasha on the 25th. Twenty-six members were present.

Mrs. T. D. Smith, Neenah, President of the Auxiliary, presided.

News Items and Personals

Mrs. R. E. Minahan, 79, Green Bay, widow of the late Dr. R. E. Minahan, died on May second in Green Bay after an illness of several years. Mrs. Minahan was a member of the Woman's Auxiliary to the Brown–Kewaunee–Door County Medical Society.

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Dr. H. W. Howe of Racine left for Europe via The Hindenburg on its first return flight to Germany. Dr. Howe is visiting clinics and hospitals in Paris, London, Berlin and Vienna and expects to return to Racine the early part of July.

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Dr. E. R. Muntz, Janesville, who for the past several months has been associated with the Munn–Farnsworth Clinic and previous to that had been practicing with Dr. Stuart C. Cullen, has accepted a position as instructor in pathology at the University of Wisconsin Medical School. He began his duties on May 25.

—△—

Dr. R. C. Buerki, Madison, was re-elected President of the Wisconsin Hospital Association at a meeting of the Tri-State Hospital Association in Chicago in May. Mr. J. G. Crownhart was again re-elected to the position of secretary of the Association and Miss Grace Crafts, superintendent of Madison General Hospital, was chosen first vice-president. Sister Felician, St. Joseph's Hospital, Milwaukee, was elected second vice-president.

—△—

"The Art of Medicine" was the subject of an address by Dr. Rock Sleyster, Wauwatosa, before members of the Circle, honorary society in the Marquette University School of Medicine, in May.

—△—

Dr. John A. Larson, who had practiced in Alma for the past five years, has become associated with his brother who is practicing in Los Angeles, California.

Dr. Larson has sold his practice to Dr. M. O. Bachhuber, who has been recently connected with the St. Mary's Hospital staff in Superior.

—△—

Dr. Ralph M. Carter, Green Bay, President of the State Society, spoke on "Organized Medicine and the Public Health" before the Institute of Public Health Nurses held in Madison on April 23.

—△—

Dr. H. H. Fechtner, formerly of Merrill, has opened an office in Wausau, Wisconsin.

—△—

Dr. George M. Shinner, who has been practicing medicine in De Pere for the past year, is now associated with Dr. L. D. Quigley in Green Bay.

—△—

Dr. R. M. Carter, President, State Medical Society, has announced the appointments of Dr. A. J.

DRAMA OF "THE GUARDIANS OF YOUR HEALTH"

Each Tuesday, Wednesday and Thursday the State Medical Society presents "The Guardians of Your Health" over the two state-owned radio stations, WHA, Madison (940) and WLBL, Stevens Point (900). These health messages are broadcast at 9:00 a. m.

The schedule for this month:

June 16—Rabies
June 17—Yellow Fever
June 18—Colitis
June 23—Diphtheria
June 24—Typhoid Fever
June 25—Pasteurization
June 30—The Story of Sue
July 1—The Story of Sue
July 2—Waging War on Polio
July 7—The Story of Sue
July 8—The Story of Sue
July 9—First Aid

McCarey, Green Bay, to the Committee on Medical Economics and Dr. John L. Garvey, Milwaukee, to the Committee on Institutional Care. Dr. McCarey succeeds Dr. P. A. Fox, Beloit, deceased, and Dr. Garvey succeeds Dr. Gilbert E. Seaman, Winnebago, resigned.

BIRTHS

A daughter to Dr. and Mrs. W. P. O'Malley, Milwaukee, on April 5.

A daughter to Dr. and Mrs. James P. Conway, Milwaukee, on April 9.

A daughter to Dr. and Mrs. Walter P. Blount, Milwaukee, on April 14.

MARRIAGES

Dr. E. C. Kocovsky, Milwaukee, and Miss Frances Schopen of Milwaukee at St. Thomas Aquinas' Church on Saturday, April 25.

DEATHS

Dr. Ever A. Olson, Osseo, died on April 21.

Born in the year 1851, Dr. Olson graduated from the College of Physicians and Surgeons, Keokuk, Iowa, in 1880. He had practiced at Osseo for fifty-eight years.

He is survived by one sister, Mrs. J. M. Campbell of Wausau.

Dr. R. W. Edden, Janesville, died on April 15 at his home in Janesville. Dr. Edden was born in the town of Harmony, Feb. 15, 1869. He was a graduate of Bennett Medical College in the year 1891. He came to Janesville in 1898 where he remained until his death.

He is survived by his widow.

Dr. Paul A. Fox, Beloit, a member of the Committee on Medical Economics of the State Medical Society, died suddenly on April 27 at his home, 811 Clary Street, Beloit.

Dr. Fox, who was a member of a family which has furnished thirteen physicians during three generations, was born in Oregon, Wisconsin, on March 28, 1872. He attended the public schools of Stoughton and the University of Wisconsin for three years. He received his medical education at Rush Medical College from which he graduated in 1895, and began his professional career at Brooklyn, Wisconsin, remaining there five years until, in 1900, he moved to Beloit. In 1898 he was married to Miss Elizabeth Walters of Oregon, Wisconsin.

In 1916, Dr. Fox was one of the organizers of the Beloit Clinic, of which he was president for several years. He was also one of the organizers of the Beloit Hospital which served the community prior to the building of the Municipal Hospital. He was also active in the organization of the movement to establish a municipal hospital and for the erection of Pinehurst Sanatorium at Janesville.

In 1929 and 1930 he was an executive member of the Beloit Municipal Hospital staff and served as a member of its committee on obstetrics in 1931 and of its laboratory committee in 1932. He served as President of the Rock County Medical Society and was an active member of the State Society's Committee on Medical Economics, his term expiring in 1937.

Dr. Fox was a member of the Rock County Medical Society, the State Medical Society, and the American Medical Association.

Survivors are his widow and two children.

Dr. Henry C. Darby, Wilmot, died on May 5 at his home in Wilmot.

Dr. Darby was born in Bridgewater, England, Jan. 21, 1855. He spent his early life in England and came to America with his parents at the age of thirteen. He attended the schools of Waukegan, Illinois, and studied medicine with Dr. D. B. Taylor of Millburn, Illinois, later entering the University of Illinois College of Medicine from which he graduated in 1883. Following practice for one year at Wheeler, Indiana, he came to Wilmot, Wisconsin, in 1884 where he remained until his death.

Survivors are his widow, two sons and four daughters.

Dr. Clayton H. Charles, Milwaukee, died on May 3.

Born at Greenwood, Illinois, in 1878, Dr. Charles was a graduate of Hahnemann Medical College and Hospital, Chicago, in the year 1902. For the past eighteen years he had practiced in Milwaukee and during the Spanish–American War served in the hospital corps at Puerto Rico.

Surviving are his widow, two daughters and three sons.

Dr. Edward L. Schreiber, Milwaukee, died of a fractured skull on May 14 when he fell down a flight of stairs while leaving a patient's home.

Dr. Schreiber was born in the year 1878 and was a graduate of Wisconsin College of Physicians and Surgeons, Milwaukee, in 1904. He had practiced in Milwaukee since graduation.

Survivors are his widow, one daughter and two sons.

Dr. J. F. Pritchard, Manitowoc, President of the State Medical Society in 1900–1901, died on May 18, at Holy Family Hospital where he had been a patient for ten days.

Dr. Pritchard was born in Norwich, Ontario, Canada, in 1846. After completion of his common school education, he entered Toronto University and later

enrolled in Rush Medical College, Chicago, from which he was graduated in 1869. He was located for a time at Oakfield, Wis., and came to Manitowoc in 1872.

Dr. Pritchard played a prominent part in railroad and utility development in eastern Wisconsin. For a period of thirty years he was one of the principal owners of the electric and gas utility companies in Fond du Lac and Oshkosh which included the interurban line between the two cities. In 1917, Dr. Pritchard sold his utility holdings.

He retired from active practice eighteen years ago.

Dr. Pritchard was an honorary member of the Manitowoc County Medical Society, the State Medical Society, and the American Medical Association.

Survivors are his widow, three daughters, Mrs. A. L. Nash, Manitowoc; Mrs. R. H. Hubbell, River Forest, Ill., and Mrs. D. C. Jones, Appleton; a son, J. F. Pritchard, Kansas City, Mo., 11 grandchildren and one great-grandchild.

SOCIETY RECORDS

New Members

H. H. Williams, Jr., Sparta Clinic, Sparta.

P. G. Spelbring, Eau Claire.

R. R. Jandrain, Luxemburg.

H. K. B. Allebach, 2200 W. Kilbourn Ave., Milwaukee.

Maurice Olsen, 3956 N. 19th St., Milwaukee.

E. H. Sutter, 1335 W. Madison St., Milwaukee.

B. E. Moore, Statesan.

John J. Boersma, 1005 N. 8th St., Sheboygan.

Paul B. Mason, 1005 N. 8th St., Sheboygan.

Theodore J. Kern, Richfield.

David J. Werner, West Bend.

F. H. Russell, 1754 South 60th St., West Allis.

Changes in Address

Eben J. Carey, 2028 N. 51st St. to 6119 W. Wisconsin Ave., Wauwatosa.

Joseph P. Wild, Milwaukee to Hancock.

Luis Gonzalez, Star Lake to 604 Co. CCC Camp, Blackwell.

Fred O. Kuehl, Hayward to CCC Camp Riley Creek, Fifield.

L. J. Bennett, Kenosha to Mead-Witter Block, Wisconsin Rapids.

MEDICAL ECONOMICS

LANDON ADDRESSES A. M. A.

A declaration for the independence of medicine from government control was made by Governor Alfred M. Landon of Kansas City in his address of welcome at the opening meeting of the American Medical Association last month.

"A nation that can maintain and even elevate its medical standards and the state of public health in the trying years of a prolonged depression," declared the Governor, "needs to make no apologies for the quality and the reach of its medical facilities. That condition itself is a tribute to the American physician in his continued unselfish devotion to a worthy task."

"NO SERVILE INSTRUMENT"

"Medicine", declared Governor Landon, "will unwillingly be made the servile instrument of politicians or the instrument of domineering bureaucracy.

"The American practitioner will not be a party to destruction of that individual, personal service which has been the occasion of a special and justifiable pride. Whatever further advances are made in the broadening of medical service,—and there will be an abundance of them,—will be made, so far as he is concerned, in accordance with the fundamental conditions of previous achievements."

INTERESTING COMMENTARY

Eighteen months ago, Dr. Rudolph Schindler left his native land because of the control of government over the practice of medicine.

At the Kansas City session of the American Medical Association, Dr. Schindler presented a gastroscope which received the gold medal award for one of the two outstanding scientific accomplishments of the year.

BAR FOLLOWS MEDICINE

A delegate of the American Bar Association, Mr. Will Shafroth, was a constant observer at the sessions of the House of Delegates of the American Medical Association. As director of the national bar program, Mr.

Shafroth pointed out in a recent issue of the American Bar Association Journal that while 67% of the physicians in the United States were members of the American Medical Association; 49% of the dentists were members of the American Dental Association; 24% of the engineers were members of the five principal engineering associations; only 16% of the attorneys of the country were members of the American Bar Association.

Mr. Shafroth pointed out that the Bar Association was now endeavoring to bring about changes in its elections and determinations of policies which would make it as representative in fact as is the American Medical Association.

YOUR OFFICE LEASE

Generally speaking, leases do not terminate at the death of the lessee unless it is so provided. It would seem wise that such a provision be made in an office lease of a physician so that the estate would be protected from the liability of a long term lease. But location is an important and valuable item in event of sale of an office and practice; therefore, the lease should not be absolutely terminated, but only at option of the executors of the estate. There follows a sample clause for insertion in your next lease agreement. Refer it to your lawyer for his consideration the next time you sign a lease.

It is mutually understood and agreed between the parties hereto that in the event of death of the lessee, during the term of this lease, his executors or administrators shall have the option of either terminating the lease or reducing its term to a month to month rental basis, such privilege to be exercised within sixty days after the executors or administrators qualify as such in proper court proceedings.

Written notice of termination given to the lessor, or his agent, pursuant to the above agreement shall terminate all liability on the part of the lessee's estate, his administrators, executors or heirs, for rents to be paid for future occupancy of the premises beyond the thirty days next following the service of the notice.

Any option to renew contained in this lease may be exercised by executors or administrators of the lessee at the time and in the same manner as provided for the lessee himself, but renewal of this lease will not be implied from any failure of the lessee's representatives to act hereunder.

YOUR NARCOTIC REPORTS

Narcotic taxpayers include doctors, dentists, and druggists. During the latter part of May there will be mailed from the office of the Collector of Internal Revenue in Milwaukee Forms 678 and 713 for re-registration under the Harrison Narcotic Law, as amended, for the year beginning July 1, 1936. In order to avoid a delinquency charge, those forms must be executed and returned to the Collector's office on or before July 1, 1936. Inventory may be taken at any time after receipt of the forms, as provided by Art. 6, of Regulations 5, and the completed forms mailed at once with remittance of tax.

Forms should be returned to the Collector's office so that they will arrive at least by June 30. Delinquency involving penalties can be entirely avoided by prompt mailing.

HIGH PERCENTAGE

In the report of the officers of the American Medical Association to the membership (JAMA—Apr. 4) it was gratifying to notice that Wisconsin ranked near the top in the percentage of members that subscribed to the Journal of the American Medical Association. The comparison was made considering those states whose membership was as large or larger than Wisconsin. Wisconsin ranked sixth in this listing with 59 per cent of the physicians in Wisconsin subscribing to the JAMA. States with a slightly higher percentage of subscribers included New Jersey, Connecticut, North Carolina, Pennsylvania, and Illinois. It is also to be noted that 1,520 of the 2,215 members of the State Medical Society of Wisconsin are Fellows of the American Medical Association.

WE DO NOT "ENDORSE"

Information has reached the office of the State Society that certain collection agencies are advising physicians in the state that they are "endorsed" by the State Medical Society.

The State Medical Society does not "endorse" or recommend any collection agency or service. The State Society does, however, offer to members of the Society its service for investigation of any collection agency that solicits physicians for accounts. Through

the service of your Society it is possible for members to secure a report on any collection agency within a period of twenty-four to forty-eight hours.

This report includes factual information as to whether the agency or firm is licensed by the state of Wisconsin, the experience of other members of this society, legal analysis of the contract form, and the general reputation of the firm or agency.

Important Actions Mark Kansas City Session of American Medical Association

IN SESSIONS of the House of Delegates of the American Medical Association which occupied more than two full days, most important legislative steps were taken to determine and clarify future policies of the Association. Outstanding among these actions are the following:

1. A re-affirmation of the Association of its age-old position holding unethical consultation with chiropractors, osteopaths, optometrists and others of the cults.
2. A statement of the Council on Medical Education that, as rapidly as possible, they are making effective the position of the Association that, in hospitals to be approved for intern training, staff membership shall be confined to members of the Association.
3. The House re-affirmed its position enunciated at the Cleveland session holding that the practice of radiology was the practice of medicine.
4. Encouraged the teaching of the subject of medical economics in Class A medical schools.
5. Went on record requesting medical school authorities to exercise closer supervision of the admittance of students to medical schools so as to exclude those whose scholastic record might be proper but whose approach to the study of medicine was not in accord with the principles of the profession.
6. Held unethical the insertion of names in so-called "directories" published for compensation and other insurance work.
7. Declared against the inauguration of further experiments in the field of providing medical service until the results of existing experiments could be studied.
8. Asked the Council on Medical Education to assure themselves that, in approving hospitals for intern and resident training, each member of the staff follow the Principles of Medical Ethics.
9. Continued the Committee on the Study of Birth Control under the Chairmanship of Dr. Carl Henry Davis of Milwaukee.
10. Held unethical the receipt of commissions in the sale of medical aids for the hard-of-hearing.
11. Approved the establishment of a Board for the certification of specialists in the field of internal medicine.
12. Held unethical the teaching of optometrists by ophthalmologists.
13. Referred to the Board of Trustees for study and appropriate action the report that funds of the Rural Resettlement Division were advanced farmers for the purchase of stock in cooperative hospitals, including one at Elk City, Oklahoma.
14. Approved a study by national and state associations of the subject of rural mileage fees.
15. With reference to American students in medical schools in Europe, the House urged licensing authorities to require that such students, before admission to examinations, either provide a license from the country in which their education was completed or evidence that they had

completed their fourth year of study in the United States with the usual one-year internship.

16. Urged component societies to drop from the list of membership any convicted of felonies, including violations of the narcotic law.

NEW PLANS

In addition to discouraging further experiments in the field of providing medical service until the wide variety already existent could be studied as to results, the House of Delegates took another important step to clarify their position on the subject of furnishing medical care by group contract.

" 'Sickness Insurance has been fairly discussed,' said the Reference Committee of the House in quoting the Committee on Legislative Activities. 'Plans for the distribution of medical care to low income groups are being tried by various county societies. Large industrial interests have approached physicians and county medical societies with plans for the medical care of their employees.'

"In contracts between physicians of organized medical groups and employers or groups of employees," said the Reference Committee, "the qualification of those eligible for medical service under the contract is based upon the source of their employment rather than the amount of their income. In this respect, such contracts must not be confused with the various experimental plans for the relief of low income groups which have been defined and within certain limits approved for the purpose of study.

"Financial concession to members of certain groups, solely because they are employed by the same employer, regardless of whether the service is to be paid for by the employer or employee, establishes a pattern for which there is not the same justification as that in which eligibility rests upon an income basis. The consideration of such contracts is not an emergency matter.

"Prudence suggests the avoidance of possible bad effects rather than independence upon judicial appeal after unwise action has been taken.

"Your Reference Committee therefore recommends that before any such contracts are entered into, that they should be submitted to the State Medical Society for approval or disapproval. The reasons upon which is based the request for approval in establishing such a contract should be stated."

This report was accepted by the House of Delegates without dissent as clarifying the position of the Association with reference to this important subject matter.

UPHAM ELECTED

Dr. J. H. J. Upham, Dean of Ohio State University College of Medicine since 1927, and formerly Chairman of the Board of Trustees of the American Medical Association, was elected President-Elect of the Association by a decisive vote. Dr. Charles Gordon Hayd, recently President of the Medical Society of the State of New York, was made Vice-President. Other officers of the Association including Dr. Olin West, Chicago, Secretary; Dr. Herman Kretschmer, Chicago, Treasurer; Dr. N. B. Van Etten, New York, Speaker; Dr. H. H. Shoulders, Nashville, Vice-Speaker, and Dr. Thomas Cullen, Baltimore, Trustee, were re-elected.

In the concluding session of the House, Dr. William Sweemer of Milwaukee, by reason of long membership in the Association, was elected to affiliate fellowship. In the final vote, Atlantic City was chosen for the 1937 session over Philadelphia by a vote of 70 to 69.

WISCONSIN DELEGATES

At each session of the House throughout its deliberation, Wisconsin was represented by its elected delegates,—Dr. Joseph F. Smith, Wausau; Dr. J. Gurney Taylor, Milwaukee, and Dr. W. E. Bannen, La Crosse. Dr. Taylor was chosen by the Speaker to be a member of the Reference Committee on Medical Education and Dr. Smith to serve as one of three tellers of the House. Dr. Carl Henry Davis of Milwaukee received a vote of appreciation of the House for his work as Chairman of the Special Committee on Birth Control and by special request of the House consented to continue in that capacity during the coming year.

Wisconsin was further represented in the House at the deliberative actions of the Association by Dr. Rock Sleyster, Wauwatosa,

who presented all reference reports and recommendations of the Board of Trustees of the American Medical Association of which Board he has been elected Chairman. Observers of House action included Mr. J. G. Crownhart, Secretary and Mr. G. B. Larson, Assistant Secretary of the State Society, and Mr. Theodore Wiprud, Executive Secretary of the Medical Society of Milwaukee County.

SCIENTIFIC PROGRAM

Several Wisconsin members were represented in the various scientific programs and exhibits. Dr. J. L. Yates of Milwaukee was a member of the Executive Committee of the Section on Surgery, General and Abdominal; Dr. Hans H. Reese of Madison was Chairman of the Section on Nervous and Mental Diseases and presented the Chairman's address on "The History of Scalping and Its Clinical Aspects"; Dr. Mabel G. Masten of Madison was a discussant in the same Section. Dr. H. R. Foerster of Milwaukee was a member of the Executive Committee of the Section on Dermatology and Syphilology. Dr. George H. Ewell, Madison, and Dr. Charles R. Marquardt, and Dr. J. C. Sargent of Milwaukee presented a combined address on "Hydrocele; Its Treatment by the Injection Method" before the Section on Urology. In the Section on Orthopedic Surgery, Dr. H. C. Schumm of Milwaukee was a discussant. In the scientific exhibits, Dr. L. D. Smith of Milwaukee was a demonstrator in the special exhibit on fractures and Dr. Arnold S. Jackson of Madison presented an exhibit on diseases of the thyroid gland. Dr. F. J. Gaenslen of Milwaukee was an exhibitor in the motion picture program in the scientific exhibit on orthopedic surgery.

The Wisconsin registration up to Thursday night of the meeting numbered one hundred and twenty-four. The total registration of the Kansas City meeting was in the neighborhood of seven thousand.

WISCONSIN REGISTRATION*

Adamkiewicz, J. J. — Milwaukee
Allebach, H. K. B. — Milwaukee
Andrew, C. H. — Platteville
Andrews, M. P. — Manitowoc
Bach, James J. — Milwaukee
Baldwin, R. S. — Marshfield
Bannen, W. E. — La Crosse
Beckman, Harry — Milwaukee
Beeson, H. B. — Racine
Bell, A. R. — Tomah
Belting, G. W. — Orfordville
Blount, W. P. — Milwaukee
Brooks, E. H. — Appleton
Brumbaugh, E. V. — Milwaukee
Buerki, R. C. — Madison
Carey, Eben J. — Milwaukee
Christensen, F. C. — Racine
Christensen, H. H. — Wausau
Christiansen, C. H. — Superior
Christiansen, James — Waukesha
Clark, W. T. — Janesville
Connell, F. Gregory — Oshkosh
Copps, Lyman A. — Marshfield
Crosley, G. E. — Milton
Crownhart, Mr. J. G. — Madison
Cushing-Lippitt, Eleanore — Milwaukee
Davis, Carl Henry — Milwaukee
Decker, W. J. — Green Bay
Donohue, W. E. — Manitowoc
Edwards, W. C. — Richland Center
Ewell, G. H. — Madison
Farnsworth, F. [illegible] — Janesville
Farnsworth, R. W. — Janesville
Fellman, G. H. — Milwaukee
Fencil, Y. J. — Casco
Fitzgerald, R. E. — Milwaukee
Flaherty, G. S. — Milwaukee
Fleck, W. L. — Milwaukee
Fletcher, Wm. — Salem
Foerster, H. R. — Milwaukee
Forbush, S. W. — Beloit
Franklin, Isadore — Milwaukee
Freitag, S. A. — Janesville
Frost, W. D. (Prof.) — Madison
Gabor, M. E. — Milwaukee
Gaenslen, F. J. — Milwaukee
Gallaher, D. M. — Appleton
Ganser, W. J. — Madison
Gavin, S. E. — Fond du Lac
Gebhard, U. E. — Milwaukee
Gramling, E. H. — Milwaukee
Greene, H. L. — Madison
Grimm, Joseph — Milwaukee
Habbe, J. E. — Milwaukee
Hammond, R. W. — Manitowoc
Hardgrove, Maurice — Milwaukee
Hartman, E. C. — Janesville
Hayman, C. S. — Boscobel
Henke, S. L. — Eau Claire
Henke, W. A. — La Crosse
Hermann, A. H. — West Allis
Herner, W. L. — Milwaukee
Higgins, S. G. — Milwaukee
Hoel, K. P. — Statesan
Hutter, A. M. — Fond du Lac
Jackson, A. S. — Madison
Jamieson, R. D. — Racine
Janney, F. R. — Wauwatosa
Jermain, W. M. — Milwaukee
Johnson, A. W. — Milwaukee
Kehl, Kenneth C. — Racine
Killins, W. A. — Green Bay
Ladewig, A. W. — Milwaukee
Larson, Mr. G. B. — Madison
Leahy, J. D. — Park Falls
Long, Chester W. — Milwaukee
Madison, F. W. — Milwaukee
Malnekoff, B. J. — Milwaukee
Maloof, G. J. — Wauzeka
Marsh, H. E. — Madison
Masten, Mabel G. — Madison
McCormick, S. A. — Madison

* This list does not include any who may have registered on Friday morning, the last half-day of the meeting.

McIntosh, R. L. ---------- Madison
Miller, H. L. ---------- Milwaukee
Montgomery, R. P. ---------- Madison
Morter, C. W. ---------- Milwaukee
Mowry, Wm. A. ---------- Madison
Nadeau, E. G. ---------- Green Bay
Neidhold, C. D. ---------- Appleton
Oberfeld, H. H. ---------- Milwaukee
Olmsted, A. O. ---------- Green Bay
Parke, George ---------- Viola
Pember, A. H. ---------- Janesville
Peterman, M. G. ---------- Milwaukee
Potter, R. P. ---------- Marshfield
Powers, H. W. ---------- Milwaukee
Reese, Hans H. ---------- Madison
Ritchie Gorton ---------- Madison
Ruehlman, D. D. ---------- Monroe
Satter, O. E. ---------- Prairie du Chien
Schlomovitz, E. H. ---------- Milwaukee
Schmit, Felix ---------- Milwaukee
Schulte, G. C. ---------- Kenosha
Schutte, A. G. ---------- Milwaukee
Seeger, S. J. ---------- Milwaukee
Sevringhaus, E. L. ---------- Madison
Sincock, H. A. ---------- Superior
Sleyster, Rock ---------- Wauwatosa
Smith, J. F. ---------- Wausau
Smith, J. W. ---------- Milwaukee
Smith, L. D. ---------- Milwaukee
Squier, T. L. ---------- Milwaukee
Stemper, I. T. ---------- Oconomowoc
Stoland, Iver ---------- Eau Claire
Sullivan, A. G. ---------- Madison
Sure, J. H. ---------- Milwaukee
Taylor, J. Gurney ---------- Milwaukee
Tenney H. K. ---------- Madison
Thompson, A. B. ---------- Milwaukee
Urdan, B. E. ---------- Milwaukee
Warner, R. C. ---------- Milwaukee
Weeks, F. D. ---------- Ashland
Wiesender, A. J. ---------- Berlin
Wiprud, Mr. Theodore ---------- Milwaukee

Governor's Citizens' Committee on Public Welfare Perfects Organization; Work Commenced

MR. J. G. CROWNHART, Secretary of the State Medical Society, is to be acting chairman of the Subcommittee on Health and Disability of the Citizens' Committee on Public Welfare during the summer months. Other members of the Committee are: Mr. S. F. Shattuck, Vice-President, Kimberly–Clark Corporation, Neenah, Chairman, (but relieved from duties during summer months); Dr. E. C. Wetzel, President-Elect, Wisconsin State Dental Society, Milwaukee; Senator Harold M. Groves, University of Wisconsin, Madison; Mrs. A. L. Blackstone, President, Wisconsin Federation of Women's Clubs, Waukesha; Rev. Ralph Barry, Pastor, First Baptist Church, Eau Claire, and Rev. M. A. Simonsen, Secretary, State Council of Churches, Milwaukee.

Prof. J. H. Kolb, Department of Rural Sociology, University of Wisconsin, is to serve as Director of the Committee's broad studies. Assistants to the Director will include Miss Winifred Ferguson, formerly District Supervisor of W. E. R. A.; Philip Flanner, formerly state transient director, and Peter Walraven, formerly city manager of Stevens Point.

The Executive Committee consists of Prof. E. E. Witte, University of Wisconsin, Chairman; Mr. William H. Spohn, Madison, Vice-Chairman; Prof. Helen I. Clarke, University of Wisconsin; Prof. John Gaus; Mr. Howard F. Ohm, Director of the Legislative Reference Library; Mr. Arnold S. Zander, Executive Secretary of the Wisconsin State Employees' Association, and Prof. Kolb. Chief Justice Rosenberry, Wisconsin Supreme Court, is Chairman of the Committee.

At the organization meeting held in Madison on Friday, May 22, Chief Justice Rosenberry made the following statement with reference to the Committee's work:

"The Citizens' Committee on Public Welfare was appointed by Governor La Follette late in February of this year. At its first meeting the Governor outlined in a broad, general way, the matters with which the Committee was expected to deal. It is to be regretted that no record of this statement has been preserved. At the outset it should be said that this is not a 'snooping' or even an investigating committee using that word in its commonly accepted sense. It may more properly be called a survey committee.

"It seems appropriate at this time to state very briefly what it is that the Committee proposes to do. Prior to this time matters of public welfare have been dealt with in this state in detail when pressing need prompted action. No effort has been made to consider the needs of the state as a whole and to coordinate the various activities of the state in this field. For instance, the poor laws have been practically un-

changed during the history of the state. Very largely they were based upon practices and laws which obtained during the reign of Queen Elizabeth. We are still parochial-minded with reference to the whole field of public welfare. We think of it in terms of locality. While this viewpoint was appropriate enough in a society which was largely rural, it does not fit into the framework of a modern, industrial society. The work of this Committee will be to study existing legislation and the organization of the various state agencies operating in this field with a view of suggesting possible revision and change. Such a survey is now necessary because of certain fundamental changes which have taken place during the last five years.

"Seldom in the life of a nation is there assembled at one time and in one integrated program such a large number of provisions with such far-reaching implications as are found in the federal social security act of 1935. One of the major principles laid down for the administration of that act is cooperation with the several states which includes the granting to them of financial assistance. In this case, as in the case with most federal legislation granting aid to states, stipulations are made with regard to standards and practices. As a group of citizens acting in behalf of the state, it will be our duty carefully to examine these federal provisions, study the details of administration to see whether they fit in with our whole state theory and ideals of social legislation, and, if they do not, to determine how we can most effectively secure for the state its full share of federal benefits. The security act contains provisions relating to old age assistance, aid for the blind, aid to dependent children, provisions for maternal and child health, for crippled children, for child welfare and for public health, each with its definitions and standards and each with its terms and conditions, upon compliance with which the state may participate in the program.

"In the 1935 session of our Wisconsin Legislature there was very little difference of opinion regarding cooperation with the mandatory requirements of the federal social security act for old age assistance, aid to dependent children, pensions for the blind, but there was a wide difference of opinion as to what state and county officials should be charged with the responsibilities of administration. Such differences were not reconciled until the very last day of the session when what is generally recognized as a compromise measure was passed. Already serious problems of administration are arising so it is fair to assume that the 1937 Legislature will wish to review this section of social legislation. If this Committee can be of service in this difficult field it will easily justify its existence. Other sections of the federal legislation will require similar scrutiny and study in order that state legislation and organization may fit into the whole scheme for the advancement of the public welfare.

"The final grant to the state of funds for relief was made November 28, 1935. A critical situation has already developed in this field because no provision was made by the last legislature for raising money for public relief. In 1936, the federal government has developed numerous plans for special relief programs, the Works Progress Administration being the most extensive. When the final allotment of federal relief funds has been expended, the state and local units of government must assume the burden of providing assistance to that residual group of needy persons whose problems are not resolved by any of the special programs. Now after four years of state and federal supervision of relief, Wisconsin must go back to county and local administration of our out-of-date poor laws. Many states have already modernized their poor laws and reorganized their systems of administration but our state unfortunately is not one of them. Therefore if this Citizens' Committee can direct its attention to needed legislation and organization for dealing with this difficult problem which is reasonably certain to be with us for some time to come, it can render a valuable service to the state.

"A wide area of public welfare requiring review and possible revision can be comprehended in such terms as physical or mental disability and delinquency both among adults

and youths. We have gone on in this state year after year adding burdens and duties to our charitable and penal institutions and to the state administration which is held responsible for them until they have come near to the breaking point. Too little consideration has been given to fundamentals which underlie state systems of care and corrections. Our Committee has the opportunity of rendering yeoman service in this field.

"Our task is to attempt to secure a consensus of citizens' opinions on policies of public welfare together with plans for state and local integration of their administration. We are not to create new systems but to start from where we are and move forward in improved ways. Some of our work will be concerned with short time and immediate plans but it should be borne in mind that at the same time we must consider long time and fundamental legislation and organization.

"At this second meeting of the Committee it is proposed to organize into small working groups and to make definite plans for the summer. For your approval or revision, the executive committee has divided the work into four fields of study, namely: (1) children, (2) health and disability, (3) public assistance and employment, (4) delinquency. In addition there are matters common to all these fields which must also be considered by subcommittees, namely: (1) finance, (2) personnel, (3) administration.

"Acting in behalf of the whole Committee, the executive committee has selected for your approval a director, Mr. J. H. Kolb. The executive committee is to be congratulated upon securing the service of this able and experienced man. It makes certain that the work of the Committee will be wisely directed and energetically carried on. The executive committee has instructed him to employ a staff to assist the various subcommittees in their work. Arrangements have been completed whereby the director and the staff shall be an integral part of the Legislative Reference Library and so come under the provisions of the state civil service. The Emergency Board has granted an allotment of $10,000 for the use of the Committee. It is understood that members of the Committee will serve without compensation but arrangements have been made for refunding of expenses for travel and subsistence, if requested.

"May I close by saying that the success of the Committee as I view it depends mainly upon two things: first, the enthusiastic and prompt cooperation of all members in carrying on the work in which they are engaged; second, if we are to be of service to the coming legislature we must carefully choose our materials and field of effort so that we will not have so much grist for our mill that it will not grind."

Medical Schools in Wisconsin: Past and Present*

By WILLIAM SNOW MILLER, M. D.
Madison

THE act organizing Wisconsin as a separate territory was approved April 20, 1836, and on July 4, 1836, it took effect. At that time the Territory of Wisconsin embraced the present State of Iowa and the Northwest Territory. Events preceding the organization of Wisconsin as a territory are not pertinent to the subject of this paper.

Madison did not, at this time, exist. The first session of the Territorial Legislature met at Belmont, Wisconsin, October 25, 1836. The second session of the Territorial Legislature was held at Burlington, Iowa, and extended from November 1, 1837, to January 20, 1838. The Territorial Legislature met for a second time at Burlington in a short session which extended from June 11 to June 25, 1838.

Iowa was organized as a territory in 1838, and in 1849 the Territory of Minnesota was created out of the Northwest Territory.

* Read at the December 4, 1935, meeting of the Wisconsin Medical History Seminar, and given as an address at the University of Wisconsin Medical School Convocation January 16, 1936.

In the meantime Madison had been surveyed and plotted; a number of the lots are reported to have been given to members of the legislature for their vote to make Madison the capital of the State. This having been accomplished, and the capitol building ready for occupation, the next session of the Territorial Legislature met at Madison, November 26, 1838.

During the intervening years a number of important acts were passed by the Territorial Legislature which have an important bearing on the subject of this paper.

Early in their proceedings the Territorial Legislature considered the establishment of a state university. Abstracts from Chapter 99 of the Laws of Wisconsin Territory passed in 1838 read as follows:

Section 1. Be it enacted by the council and house of representatives of the territory of Wisconsin, That there shall be established at or near Madison, the seat of government, a university for the purpose of educating youth, the name whereof shall be "the University of Wisconsin." The said university shall be under the government of a board of visitors not exceeding twenty-one in number.

Section 5. The said visitors may from time to time establish such colleges, academies and schools, depending upon the said university, as they may think proper and as the funds of the corporation will permit.

Approved January 19, 1838.

The last session of the Legislative Assembly of the Territory of Wisconsin adjourned *sine die* March 13, 1848. On March 2, eleven days before its final session, Governor Dodge approved a bill incorporating "The Wisconsin Medical College" which was to be "located in or near the city of Milwaukee." "The object of this incorporation shall be to promote the general interests of medical education, and to qualify young men to engage usefully and honorably in the practice of medicine and surgery."

Nothing came of this effort to incorporate a medical school in Milwaukee. I have not been able to ascertain the name, or names, of the individuals who petitioned for the incorporation.

On May 29, 1848, Congress approved the act under which Wisconsin was admitted to the Union. Section 6, Article X, of the State Constitution provides for the establishment of a University, as follows:

Provision shall be made by law for the establishment of a state university, at or near the seat of state government, and for connecting with the same, from time to time, such colleges in different parts of the state as the interests of education may require. The proceeds of all lands that have been or may hereafter be granted by the United States to the state for the support of the university, shall be and remain a perpetual fund to be called the "university fund," the interest of which shall be appropriated to the support of the state university, and no sectarian instruction shall be allowed in such university.

Had reasonable care and judgment been exercised in the administration of the various land grants to the University, they would have formed the basis of a magnificent endowment and much of the financial distress of later years would have been avoided.

On July 26, 1848, Governor Nelson Dewey approved the following act incorporating the University of Wisconsin.* I quote portions of two of the sections.

An act to establish the University of Wisconsin. The people of the state of Wisconsin represented in Senate and Assembly, do enact as follows:

Section 1. There shall be established in the state at or near the village of Madison in the county of Dane an institution of learning under the name and style of the University of Wisconsin.

Section 8. The University shall consist of four departments: First, the department of science, literature and the arts; second, the department of law; third, the department of medicine; fourth, the department of the theory and practice of elementary instruction.

Many years, however, were to elapse before a department of medicine was established at the University of Wisconsin.

MADISON MEDICAL COLLEGE

On August 2, 1848, a second medical school, the *Madison Medical College,* was incorporated.

An act to incorporate the Madison Medical College. The people of the State of Wisconsin represented in Senate and Assembly, do enact as follows:

Section 1. George W. Richards, Moses L. Knapp, Chandler B. Chapman, John Y. Smith, Richard S.

* This act repealed the Territorial act of January 19, 1838.

Molony and Nathaniel W. Dean, their associates and successors, are hereby constituted a body corporate and politic for the purpose of giving instruction in the sciences of medicine, surgery and chemistry and all the various sciences connected with the healing art, to be distinguished and known by the name of the "Madison Medical College," to be located in or near the village of Madison (with power to create a branch of the same) and by that name the said George W. Richards, Moses L. Knapp, Chandler B. Chapman, John Y. Smith, Richard S. Molony and Nathaniel W. Dean, their associates and successors, are hereby invested with all power of making or altering their now by-laws and regulations: Provided they do not conflict with the constitution and laws of the United States or of the State of Wisconsin: of taking and holding by gift purchase or demise of real or personal estate and of selling the same; and of appointing and removing instructors, or of suing and being sued, and of doing all the acts that the good of said corporation may require for the purpose of which the same is created. The said corporation may have a common seal and alter the same at pleasure.

Section 2. A quorum of said corporation to do business shall consist of two-thirds of the whole number of said corporation.

Section 3. The president with the consent of the professors of the said college shall have power to give and offer those honors and degrees which are usually given in such institutions to such persons as they may think worthy thereof.

Section 4. The property of said college real and personal shall at no time exceed the hundred thousand dollars.

Approved—Nelson Dewey.

Laws of Wisconsin. First session 1848. p. 273.

No session of the College was ever held at Madison. Under the terms of the charter a branch, the *Rock Island Medical School*, was organized at Rock Island, Illinois. Weaver, in *Beginnings of Medical Education in and near Chicago*, says, "It is likely that the organization was effected in this way because a charter was easier to secure from the newly organized legislature of Wisconsin than in Illinois."

One of the incorporators of the Rock Island Medical School, Chandler B. Chapman, was from Madison and was one of the incorporators of the Madison Medical College. In the published announcement of the Rock Island Medical School, Chapman is given the title of "Professor of the Principles and Practice of Surgery." Dr. Orpheus Everts of Fond du Lac, Wisconsin, was the "Demonstrator of Anatomy" in the same school. Only one course of lectures, which extended from November 7, 1848, to February 20, 1849, was given at Rock Island: 21 students were, however, graduated. A new charter was secured in Iowa; the name of the college was changed to the *College of Physicians and Surgeons of the Upper Mississippi*, and the institution moved to Davenport, Iowa.

Fig. 1. Medical building at Keokuk, Iowa.

In the reorganized school at Davenport, Chapman occupied the chair of Anatomy, and Everts was transferred to the department of Chemistry and Pharmacy. Davenport was not, however, to be the permanent home of the school. In 1851, it moved to Keokuk, Iowa, and was known, as late as 1865, as the "Medical Department of the Iowa State University, located in the city of Keokuk, Iowa." (Fig. 1.) In 1868 the University of Iowa organized its own department of medicine, and the institution at Keokuk resumed the name "College of Physi-

Fig. 2. Chandler B. Chapman. From a daguerreotype in the possession of his granddaughter, Anne Chapman, Williamsburg, Virginia. Taken in Cincinnati, Ohio, at the time he was teaching at the Miami Medical College.

cians and Surgeons." Eventually it was absorbed by the University of Iowa and became in 1913 a part of the *State University of Iowa College of Medicine.* So the Madison Medical College, through its branch, the Rock Island Medical School, became in time a part of the State University of Iowa College of Medicine.

Chapman continued with the school when it moved to Davenport, but did not follow it when it removed to Keokuk. In 1851 Chapman went to Europe and spent his time studying at the Hotel-Dieu, Paris, and other institutions*

Chandler B. Chapman was one of the leading physicians of early Wisconsin. He was born in Middlebury, Vermont, July 7, 1815, and graduated in 1836 from the Vermont Academy of Medicine at Castleton. The following year he married Mary Eugenia Pease, and moved to Trumbull County, Ohio. Here he practiced medicine until 1846, when he moved to Madison, Wisconsin. He immediately began to take an active part in medical affairs. (Fig. 2)

The act incorporating the *Medical Society of the Territory of Wisconsin* was approved February 19, 1841, and the society was organized in January, 1842. All records of the society prior to 1847 have been lost. On Tuesday, January 12, 1847, the society met at Madison. Chapman was elected a permanent member of the society and at the same meeting was made Recording Secretary for the ensuing year.

The *Wisconsin Argus* for August 22, 1848, and succeeding issues, carried the following card which tells of his specialties in surgery:

C. B. CHAPMAN
Physician and Surgeon
Will attend particularly to diseases of the eye, and operations for strabismus (cross eyes) club feet and other muscular disturbances
Madison, Wisconsin Territory

THE CHAPMAN SCHOOL

In addition to his lectures on surgery and anatomy at Rock Island and Davenport, Chapman received private students into his office at Madison for instruction in various branches of medicine. This led, after the close of his connection with the Davenport school, to his opening a *Practical School for Anatomy and Surgery* at Madison. The *Daily Wisconsin Argus* for December 4, 1851, and through January, 1852, carried the following announcement:

MEDICAL LECTURES
A course of instruction in ANATOMY and PRACTICAL SURGERY will be given by Dr. C. B. Chapman commencing on the 5th day of January next
Madison, Dec. 4th, 1851

I reproduce the 1852 Circular and Catalogue of Chapman's school, from a copy on file in the Library of the State Historical Society of Wisconsin. (Fig. 3–7)

Dr. N. M. Dodson, whose name appears in the list of students in Chapman's catalogue, was the father of the late Dr. John M. Dodson, of Chicago. He was born at Huntington, Luzerne County, Pennsylvania, June 26, 1826. He began the study of medicine at the

* A second trip abroad was made in 1874–75. Most of the time was spent in the Holy Land.

CIRCULAR AND CATALOGUE

OF

Dr. C. B. CHAPMAN'S

PRACTICAL SCHOOL

FOR

ANATOMY AND SURGERY.

Madison, 1852.

Figs. 3 to 7, inclusive, reproduce Chapman's "Circular and Catalogue." The original is in the Library of the State Historical Society of Wisconsin.

ADVERTISEMENT.

Dr. Chapman will receive pupils for instruction throughout the year, in the various branches of Medicine and Surgery.

There will be a lecture term of about eight weeks in the winter, commencing the first week in December, in which will be given a course of lectures on Practical Anatomy and Operative Surgery. Throughout the remainder of the year, Recitations and Clinical Instruction, with the best facilities we can command, will be given.

Ample facilities will be afforded for the study of Anatomy during the winter term. An opportunity will be afforded, and provision made, for private dissection, provided application be made early—a privilege as rare as valuable, but without which no one can obtain an adequate acquaintance with Anatomy and Surgery.

Every thing will be supplied that circumstances admit, calculated to facilitate the progress of the student. Free access may be had to a respectable Anatomical Collection, Library, &c.

Fig. 4.

Rock Island Medical College in the session of 1848–49. Chapman was the professor of the Principles and Practice of Surgery. At the close of the session at Rock Island Dr. Chapman invited Dr. Dodson to return to Madison with him and spend the vacation months in his office.

The following episode is taken from a letter received from Dr. John M. Dodson some months previous to his death.

Relative to anatomical material you will be interested in the account my father gave me of the exploit of himself and a fellow student of the Rock Island school. Each student was urged to procure bodies for dissection when and where he could. In the autumn of 1850, my father and a fellow student named Wright, who had also spent the summer reading medicine in Dr. Chapman's office, learned of the death of a pauper and of his burial in the potter's field, then located in the third ward and later given over to use as a public play ground; [known as] "Orton Park." Armed with the necessary tools they proceeded to the grave on the next favorable dark night and obtained the body. They were at loss for a place to hide it until their return to Rock Island where they planned to take it for dissection. Just at that time a Methodist church was being erected opposite the north corner of the Capitol park and they decided that a safe place would be between the floor joist which had just been set up. Scooping out a shallow grave the body was deposited there and carefully covered. What was their consternation when a few days later they saw the floor boards being nailed down. Fortunately the time for their departure for Rock Island was about due, and they removed the body, packed it in a suitable box and started off with it as part of their baggage to Galena where they took a boat down the river to Rock Island. They were not apprehended, and I doubt not some similar resurrection by less fortunate students may have had to do with the closing of the school.

Weaver says the Rock Island school was discontinued at the close of the first session due to disturbances arising, probably, from some scandal connected with procuring anatomical material. This being the case, the body obtained by Dodson and Wright must have gone to Davenport, Iowa, where the school was reestablished.

Henry B. Favill, in his *Early Medical Days in Wisconsin,* has the following account of Chapman's school, written by Dr. B. F. Dodson of Berlin, Wisconsin, who was a brother of Dr. N. M. Dodson.

I went into Dr. C. B. Chapman's family December 17, 1851, and remained until November, 1853. Living in the place [Madison], besides Dr. Chapman, were Drs. Favill (father of Dr. H. B. Favill) Ward and Gray, all in active practice. At Cottage Grove were Drs. Rogers and Crane. Dr. Rowley, I think, lived at Middleton. In the spring of 1852, there was added Dr. Bowen, who came from Rochester, N. Y. At this time Dr. Chapman was giving a good deal of time to instructing students, having a couple of rooms for that purpose on the corner of State Street, in which students had an opportunity to do some dissecting, some friendly physician outside furnishing the dissecting material. During the summer months his aim was to hold weekly recitations in anatomy and physiology. As most of the class was made up of persons otherwise engaged, they could not recite every day. I may mention the names of some of the class, though I cannot give the given names: Wilcox, afterwards member of

TERMS OF TUITION.

Forty dollars a year including the winter course.

Tickets for the winter course, only on Anatomy and Surgery, eight dollars. After two years tuition has been paid, no more will be demanded, except for Incidental Expenses.

To make the advantages of this arrangement still greater, during the winter course of lectures, the class may be arranged into classes of five; and to every such class material will be furnished for private dissection, with an additional fee, only, of five dollars from each student.

In order to be sure of provision for this arrangement, early application must be made, *and also pre arranged* so as to give time to provide material before the close of navigation, as a more [illegible] supply will otherwise be precluded.

Dr. C. purchased at considerable expense, while in Paris, during the last summer, Cruveilhier's Pathological Anatomy [illegible] colored plates. This will prove a valuable aid to students in comparing them to distinguish *post mortem* appearances [illegible] than a residence of months in the largest hospitals of our country.

Fig. 5.

CATALOGUE OF STUDENTS

For the Years 1851, '52.

NAMES.	RESIDENCE.	INSTRUCTORS.
G. M. Austin, M. D.		
Harvey C. Brown,	Madison,	Dr. Chapman.
Joseph Casto,	"	Dr. J. Gray.
C. Pease Chapman,	"	
N. P. Davis,		
N. M. Dodson, M. D.,	Berlin, Wis.,	
B. F. Dodson,	Luzerne, Pa.	Drs. M'c & Dodson.
J. B. Dwinnell,	Lodi, Wis.,	Dr. J. H. Warren.
L. B. Higbee,		
Daniel M. Holt,	Madison,	Dr. Chapman.
J. H. Hunt, M. D.,	"	
Rufus Howard, M. D.,	Hanchettville, Wis.,	
B. H. Jewell,	Berlin, Wis.,	Drs. M'c & Dodson.
George H. Mercer,	Madison,	Dr. Chapman.
J. Rogers, M. D.,	Cottage Grove, Wis.	
Dr. N. S. Rowley,	Verona, Wis.,	
H. H. South,	Madison,	Dr. Chapman.
George C. Taylor	"	"
Prof. H. Wright,	"	"
A. S. Wood,	"	
J. H. Warren, M. D.	Albany, Wis.,	

Fig. 6

SUGGESTIONS.

Students are advised to provide themselves with the following Elementary Books, upon the commencement of their studies:

Wilson's Anatomy,
Carpenter's Human Physiology,
Wilson's Principles of Medicine.

More advanced students are advised to add—

Watson's Practice,
Miller's Principles of Surgery,
" Practice "
Rigby or Churchill's Midwifery,
Gardner's Medical Chemistry.

Fig. 7.

the assembly; G. R. Taylor, who afterwards practiced at Waupaca; Holt, who afterwards practiced at Little Falls, N. Y.; Boswell and Crandall, two university students who returned to Canada in 1853, and others—as well as myself.

In November, 1853, Chapman left Madison for Cincinnati, Ohio. In the Annual Announcement of the Cincinnati College of Medicine and Surgery for the session of 1854–55 he is listed as Professor of Physiology and Pathological Anatomy. Chapman's connection with the College lasted only one year. He probably was not aware of the reputation of its founder, Alvah H. Baker, at the time he joined its faculty, and was not sorry to leave it at the end of the year. Robert R. McIlvane, the father of the Cincinnati Academy of Medicine, characterized the school as follows: "The Cincinnati College of Medicine and Surgery was conceived in sin and born in iniquity."

The first Dental School in the world was founded in 1840, at Baltimore, Maryland. The second of its kind was the *Ohio College of Dental Surgery*, and was organized by the physicians in Cincinnati. The first course of lectures was begun in 1845. In 1856, following his retirement from the Cincinnati College of Medicine and Surgery, Chapman became connected with this school as Professor of Anatomy. He delivered the introductory lecture to the class of 1856–57; the valedictory address to the graduates of the class of 1857–58; the introductory address to the class of 1859.

During the Civil War, Dr. Chapman served first as surgeon to the Sixth Wisconsin Regiment; later he was Medical Director 3rd Division, Army of the Frontier; Acting Medical Director 2nd Division U. S. Forces on the Rio Grande; Examining Surgeon of several organizations being raised in Texas. He resigned from the army August 12, 1864.

The first medical school in the West was the *Medical Department of Transylvania University* which was founded at Lexington, Kentucky, in 1817, and was formally abolished in 1857.

The second medical school, *The Medical College of Ohio*, was founded at Cincinnati, Ohio, in 1819. In spite of the turmoil which

characterized Cincinnati in its early medical history, the Medical College of Ohio continued its existence until 1909, when it gave way to the *Medical Department of the University of Cincinnati.* In the meantime it had absorbed several lesser medical schools among which, in 1857, was the *Miami Medical College* that had been organized in 1852.

After the close of the war the Miami Medical College was, in 1865, revived. In the *History of the Miami Medical College and its Faculty and Alumni,* Chapman's name appears as Professor of Chemistry, Toxicology and Jurisprudence. The lectures were at first given in the College of Dental Surgery. Later, in 1866, the Miami Medical College acquired its own building.

Chapman resigned his professorship in 1868 and returned to private life. He died at Madison, Wisconsin, May 18, 1877, aged 62 years.

I have dealt with Dr. Chapman somewhat in detail because of his activity, not only in connection with Wisconsin medical schools, but also with those of Ohio.

UNIVERSITY MEDICAL DEPARTMENT

Returning from this digression to the subject of this paper, we find that at the meeting of *The Medical Society of the State of Wisconsin,* held at Madison, January 16, 1850, "Dr. A. L. Castleman was appointed to confer with the Regents of the Wisconsin University, who are now in session, on the subject of organizing the Medical Department of that Institution." Apparently a conference was held, for at the afternoon session of the Society:

> On motion, Drs. A. L. Castleman, E. B. Wolcott, and James P. Whitney were made a committee to take into consideration the suggestions of Chancellor Lathrop in relation to the organization of the Medical Department of the University of Wisconsin; also all such matters connected with the subject of Medical Education as shall to them appear desirable, confer still further with the Regents of the University and report their doings in writing at the next meeting.

At the meeting of the Society held in Milwaukee, June 11, 1850, "Dr. Castleman, from the committee on the Organization of the Medical Department of the Wisconsin University, reported progress and asked for continuance, which was granted." The Secretary's report does not contain any written report and nothing further is found in the transcript I have; but in the published Transactions it is stated that "The conference resulted in reporting against the immediate organization of said Department." This ended for the time being the attempt to establish a Medical Department at the University of Wisconsin, although the act of July 26, 1848, called for the establishment of such a department.

Fig. 8. Dr. Alfred L. Castleman; Dean of the first medical department in the University of Wisconsin. The department existed only on paper.

Dr. E. B. Wolcott of Milwaukee was a member of the committee appointed by *The Medical Society of the State of Wisconsin* to confer with the Regents in regard to organizing a Medical Department at the University. It is possible that the result of that conference suggested to him the possibility of establishing a Medical School at Milwaukee. L. F. Frank in *The Medical History of Milwaukee* says that:

In April, 1850, a number of physicians organized a college under the charter of the State University, Dr. E. B. Wolcott being elected president; A. D. Smith, secretary; Eliphalet Cramer, treasurer, and the following members of the faculty were chosen: E. B. Wolcott, Prof. of Surgery; J. P. Whitney, Prof. of the institutes of medicine; A. D. Smith, Prof. of medical jurisprudence.

Although a number of meetings were held, nothing was accomplished, and the attempt to organize a college of medicine under the charter of the State University was abandoned.

To meet popular demands for professional schools, a department of medicine was established at the University of Wisconsin. The following is taken from the Seventh Annual Report of the Board of Regents:

The Board at their February [1854] meeting passed an ordinance establishing a Department of Medicine in the University. [The following chairs were announced.]

Anatomy and Physiology.
Surgery—Clinical and Pathological.
Theory and Practice of Medicine.
Obstetrics and Diseases of Women and Children.
Chemistry and Pharmacy.
Materia Medica and Botany.
Medical Jurisprudence.

The chairs will be filled at an early date.

It is the fixed intention of the University authorities that all means at their command shall be so administered as to aid the diligent and successful student, and to secure to the institution a just public confidence and support.

The medical Faculty shall hold their terms, and deliver their instructions in the town of Madison.

Candidates for graduation—shall not be less than twenty-one years of age; shall be of good moral character: shall have had two years of private pupilage and have attended two courses of lectures or shall have attended three courses of lectures without previous pupilage (the last course in either case in this department): shall have passed a satisfactory examination, and, if required, shall have written and defended a thesis on some medical subject before the board of examiners.

Candidates with the above qualifications, shall, on recommendation of the examiners, be entitled to the degree of M. D.

The various chairs in the prospective school of medicine had been designated, but no professors appointed. The Annual Report of the Board of Regents for 1855 contains a list of appointees.

The Board at the last meeting [1854] provided for the organization of a Medical Department. The several chairs of instruction have been filled with the exception of those of Surgery and the Institutes of Medicine. Arrangements will be made for opening the school at an early day, and under favorable auspices.

List of the Professors in the Faculty of Medicine:

Alfred L. Castleman, M. D., Professor of the Theory and Practice of Medicine.

Ezra S. Carr, M. D., Professor of Chemistry and Pharmacy.

D. C. Ayers, M. D., Professor of Obstetrics and Diseases of Women and Children.

George D. Wilber, M. D., Professor of Materia Medica and Botany.

Samuel W. Thayer, M. D., Professor of Anatomy.

The Board of Regents reported in 1856 as follows:

The several Chairs are now filled and the Faculty has been duly organized by the election of Professor A. L. Castleman, M. D., of Delafield, Dean; (Fig. 8) Professor Alexander Schue, M. D., of Madison, Treasurer; and Professor George D. Wilber, M. D., of Mineral Point, Secretary.

As time will be necessary for prearrangements, the department will not be formally opened until early in the Spring of 1858; at which time regular courses of lectures will be commenced by the several Professors and systematic instruction will continue through a period of, at least, four months.

If the main edifice is erected during the present year, the department will be opened there, otherwise a suitable building will be secured for temporary use.

The faculty listed in the report for 1855 was completed by the election of:

Joseph Hobbins, M. D., Professor of Surgery.
Alexander Schue, M. D., Professor of the Institutes of Medicine and Pathological Anatomy.
J. M. Lewis, M. D., Demonstrator of Anatomy.

No further information in regard to the organization of the Faculty of the Medical Department can be obtained from the Regents' Reports, or from the catalogues of the University of Wisconsin; but in the "Madison City Directory, and Business Mirror" for 1858 I find the following under the caption "Wisconsin State University, at Madison."

Faculty of Medicine. — Chancellor, John H. Lathrop, LL.D. Dean, (vacant by Dr. Schue's death.) Treasurer, A. L. Castleman, M. D.; Secretary, Geo. D. Wilber; Prof. Princ. and Prac. of

Med., Alfred L. Castleman, M. D.; Prof. Chemistry and Pharmacy, Ezra S. Carr; Prof. of Surgery, Joseph Hobbins, M. D.; Prof. of Physiology and Path. Anatomy (vacant by Dr. Schue's death); Prof. Obstetrics, Dis'd Women and Children, D. Cooper Ayers, M. D.; Prof. Materia Medica and Botany, George D. Wilber, M. D.; Anatomy, Samuel W. Thayer, Jr., M. D.; Demonstrator of Anatomy, James M. Lewis, M. D.

From the Tenth Annual Report of the Board of Regents [1857]:

The opening of the University Schools of Law, and of Medicine, has been deferred by the Board till after the erection of the main edifice.

So a Medical Department at the University of Wisconsin, which seemed to be assured, turned out, after all, to exist as so many others had done—only on paper. The School of Law opened many years before that of Medicine. Law took precedence over the health and well-being of the state, but it was so ordained in the 1848 charter.

GALESVILLE UNIVERSITY

The secretary's report of the meeting of the *La Crosse County Medical Society,* held December 24, 1859, contains the following interesting item: "Doctor Cameron moved that a committee of three be appointed by the Chair to obtain, if possible, the passage by the State Legislature of a charter for a Medical College to be located in the city of La Crosse—carried. Drs. Cameron, Baxter, and Blakeslee, Committee."

At the March 3, 1860, meeting of the Society the committee on a Medical College reported, after due consideration of the subject, adversely. The committee also offered the following resolution: "If practicable, and in accordance with the wishes of the Trustees of the Galesville University, to establish the Medical Department of said University in this City." Passed unanimously. The minutes of a meeting of the Trustees of Galesville University held April 5, 1860, contain the following action on the resolution of the La Crosse County Medical Society: "Resolved to accept proposition of the La Crosse County Medical Society. Luce, Sec'y."

No further action was taken by either party.

This ended the attempt of the La Crosse County Medical Society to form a medical school in connection with the Galesville University. It did not, however, end the effort to establish a medical school in La Crosse. Led by a non-medical man, a lawyer by the name of E. H. McMillan, a group of physicians continued the agitation for a medical school. The outbreak of the Civil War postponed the project for the time being. In 1864 the project was revived, and on April 18, 1864, the *La Crosse Medical College* was granted a charter by the Legislature. The later history of the College has been told in the January, 1934, issue of the *Wisconsin Medical Journal.*

Mr. Arthur F. Giere of Galesville has furnished me the following, taken from the catalogue of Galesville University for 1863:

BY-LAWS GALESVILLE UNIVERSITY

DEPARTMENTS OF THE UNIVERSITY

Sec. 15. The Galesville University is divided into the following departments, viz:

1st. The Primary and Normal Department.
2nd. The Philosophical and Classical Department.
3rd. The Agricultural and Mechanical Department.
4th. The Law Department.
5th. The Medical Department.
6th. The Biblical Department.

Available records do not show any specifically medical student, nor the graduation of any student in medicine.

In 1860 Dr. William M. Young was elected a teacher in the medical department, with the title of "Professor of Chemistry and Pharmacy." In 1863 Dr. Whitcomb of Galesville did some teaching at the University; but in what subjects, Mr. Giere was not able to state. Unfortunately, in 1884 many of the records of the University were destroyed in a disastrous fire.

MILWAUKEE EFFORT

Another attempt was made in June, 1868, by a group of Milwaukee physicians, to organize a medical school which was to be connected with the University of Wisconsin. The instruction was to be given in Milwaukee, but the degrees were to be conferred by the Uni-

versity. A meeting was called to confer with Edward Salomon, a member of the University Board of Regents. Dr. James Johnson, Milwaukee's first commissioner of health, was appointed chairman of a committee who was to investigate the problem and report. Dr. Johnson reported on January 7, 1869, that "in view of the pecuniary assistance likely to be required, as well as many other considerations, the committee is led to decide that any present action would be premature." This ended another endeavor on the part of Milwaukee physicians to organize a medical school which would form the medical department of the University of Wisconsin. Milwaukee evidently was trying to keep alive the purport of the bill passed by the Legislative Assembly of the Territory of Wisconsin in 1848, which was "to promote the general interests of medical education, and to qualify young men to engage usefully and honorably in the practice of medicine and surgery"; but, like the previous, this later effort failed to accomplish the purpose.

Through the efforts of Mrs. Harvey, widow of the War Governor, Louis P. Harvey, President Lincoln was induced to establish a number of Northern hospitals for convalescent soldiers. Three were established in Wisconsin—at Madison, at Milwaukee, and at Prairie du Chien. At Madison the old Farwell house in the third ward was secured and named the *Harvey United States Army General Hospital.* At the close of the war Mrs. Harvey, learning that the Government was about to discontinue the hospital, secured it for a home for soldiers' orphans. At first it was conducted as a private enterprise, but in March, 1866, the State assumed its maintenance. In 1874, feeling the need for retrenchment, the State closed the institution.

In 1875 the legislature "transferred to the Regents [of the University] the custody of the Soldiers' Orphans Home—and authorized them to establish thereon a medical college." After consultation with the State Medical Society, the Society thought such a college to be impracticable at the present time. The property was sold and the proceeds turned into buildings on the campus. So again buildings were acquired at the expense of a medical college. This does not, however, tell the whole story, and it creates an erroneous impression in regard to the State Medical Society.

NO MIXED SCHOOL

The annual meeting of the State Medical Society was held at Madison, June 1, 1875. At nine o'clock on the evening of June 2, the Society assembled for its annual banquet at the Park Hotel. An address was given by President Bascom, of the University, which aroused the ire of the members of the Society. The secretary's report of the meeting on the following morning states:

> The remarks of President Bascom of the State University at the banquet the previous evening advocating the establishment of a medical department at the University on a basis of *equal privileges to all systems of Medicine** brought out Dr. Favill with the following resolution, viz:
>
> *Resolved,* that in the opinion of this Society the establishment of a medical college in the city of Madison is deemed inexpedient.
>
> The resolution was adopted.
>
> On motion of Dr. Whiting the Society also expressed its disapprobation of any movement looking towards the future establishment of mixed schools of medicine in connection with the State University.

President Bascom, in his annual report to the Board of Regents for 1875, erroneously stressed the disagreement within the medical profession of the State "as to the desirability of a medical college within its bounds, and [that] comparatively few earnestly support such an institution." He was in error in that the "disagreement" was *not* within the medical profession *but with the idea of establishing a mixed school of medicine.* Continuing, President Bascom said:

> Such a college, if established, should certainly be located at Milwaukee, as affording, by its size, far more clinical advantages than Madison, or any other place within the State. We should be glad to unite a medical college in Milwaukee to the University, and should hope both to aid it, and to receive aid from it.

I doubt if a mixed medical school such as President Bascom advocated would have been acceptable to the medical profession of Milwaukee. His statement that Milwaukee had at that time (it still has) a larger amount of clinical material than Madison, was true;

* Italics not in the original. W.S.M.

but what would President Bascom say could he return to Madison and see the five hospitals now here, and the amount of clinical material available!

TWO MILWAUKEE SCHOOLS

On April 13, 1881, the following articles of association were filed with the Secretary of State:

> We, Charles O. Jenison, William H. Coney, and James Dishington—do hereby associate for the purpose of forming a corporation under the Revised Statutes of the State of Wisconsin for the establishment, maintenance and use of a College for giving instruction in the several branches of medical science as ordinarily taught in the medical schools throughout the country namely: Anatomy, Physiology, Chemistry, Materia Medica, Therapeutics, and the Practice of Medicine, Surgery and Obstetrics.
>
> The name of such corporation shall be *The Milwaukee College of Physicians and Surgeons* and shall be located at the City of Milwaukee, in the county of Milwaukee, Wisconsin.

This establishment, known as *The Coney Medical Institute,* was declared fraudulent and its charter annulled in 1883. In the meantime the incorporators left Milwaukee.

The question of a medical department in connection with the University would not down. President Bascom was, however, still opposed to any move in that direction. In his report to the Board of Regents in 1884 he says:

> Our relations to Chicago are such that we have never thought the establishment of a medical school to be a project of any particular promise. We can plead for it neither necessity nor any special advantages. On the other hand, all the accessories of a medical college remain with us to be created.

On November 8, 1884, Horace M. Brown, A. Bradford Farnham and James Dorland filed with the Secretary of State articles of association for the incorporation of *The Milwaukee School for Surgery, and Anatomy.* Like Dr. Chapman's school at Madison, it did not call itself a Medical College, but rather a school in which the primary branches of Medicine and Surgery were to be taught. No diplomas that could be considered as license to practice medicine were to be issued. Lectures and demonstrations were to commence about March 1, 1885, in the following subjects: Surgery, by Dr. N. Senn; Surgical Anatomy, by Dr. Wm. Mackie; Descriptive Anatomy, by Dr. H. M. Brown; Principles of Medicine, by Dr. James Dorland; Obstetrics, by Dr. Robert Herdegen; Gynecology, by Dr. Wm. Fox; Chemistry, by Dr. A. B. Farnham; Physiology, by Dr. John Bading; Materia Medica, by Dr. Henry V. Ogden. Although the conception of the school was a broad one and the lecturers were men of ability, the school failed to materialize.

Fig. 9. Dr. John M. Dodson. Taken in the early 1880's. Dr. Dodson took an active part in the movement that eventually led to the establishment of the present medical department at the University of Wisconsin.

At the annual meeting of the State Medical Society held at Madison, June 1, 1886, a committee of five was appointed to confer with the Regents of the University "in regard to establishing a preliminary course of medical study in the University, (it being understood that this is not to be a Medical Department in any sense of the word)." The

committee met with the Regents "and they seemed to look favorably upon the project, but owing to a contemplated change in the Presidency of the institution, they asked that it be postponed."

THE PRE-MEDICAL COURSE

At the annual meeting of the State Medical Society held at Oshkosh, May 3, 1887, Dr. J. M. Dodson (Fig. 9) presented the report of the committee appointed to confer with the Regents in regard to the establishment of pre-medical studies as follows:

1. They call attention to the facilities now offered by the General Science Course for such a course of study, as shown by the annexed table of studies.

2. They suggest that a course of study, extending over two years and not leading to a degree, be marked out for the benefit of such persons as lack either time or money to pursue a four years' course. A scheme for such a two years' course is presented herewith.

3. They request the regents to authorize the preparation and distribution of a circular showing the advantages afforded by the University to those persons intending to study medicine. They believe that such a measure would bring to the University a not inconsiderable number of students, and that such students would receive a valuable introduction to the intelligent study and practice of medicine.

The intent of the circular was to present an outline of Science Work in the General Science Course, to be taken as an introduction to the study of medicine. When taken as a four-year course it would lead to a degree; but when taken as a two-year course it would not lead to a degree.

Later in the session Dr. Dodson read the following resolutions to be presented to the Board of Regents for a course of study to be known as "A Course Preliminary to the Study of Medicine," which, upon being read, was adopted:

Resolved, That the Wisconsin State Medical Society would respectfully request the Board of Regents of the State University to arrange such a course of preliminary medical instruction as has been drawn up by the committee appointed by this Society for that purpose, such course to be known as a course "Preliminary to the Study of Medicine."

Resolved, That this Society would recommend that members advise their students to take advantage of such a course when formed, as leading to a broader, stronger, more useful preparation for the study of medicine.

No copy of the circular requested by the State Medical Society can be found, but the University Catalogue for 1887 contains the outline in full. Apparently the announcement in the Catalogue was intended to take the place of the circular; in the same Catalogue a special course, antecedent to the study of medicine, was included as part of the general science course. "It was not a separate organization; students taking the course were enrolled as part of the general science course." When the course was completed the student did not receive a diploma, but a certificate that he had attended the course. This counted in any of the three regular schools in Chicago as the first year of the three years' required course. In 1888 there were 27 students taking the course.

The State Medical Society at its meeting in Milwaukee in 1888 expressed its gratitude to the Regents for providing the requested course:

Resolved, That we approve heartily the Special Science Course, antecedent to the study of medicine now offered students by the University of Wisconsin, and that, on behalf of the medical profession of the State, we extend thanks to the Regents and Faculty of the University for this effort to elevate and broaden the standard of medical education.

Resolved, That we commend the course to all students contemplating the study of medicine, as affording a broad and solid foundation for a professional career, and that we request our members to advise their students to enter upon this course if their time and means admit of it.

In 1892, title of the "special science course antecedent to medicine" was changed to *Pre-Medical Course*, and a forward step was taken towards the ultimate establishment of a department of medicine at the University of Wisconsin.

BEGINNINGS OF MARQUETTE

Not discouraged by previous failures to establish a medical school, a number of Milwaukee physicians met on the evening of December 21, 1891, and made another attempt to establish a medical school. The meeting adjourned to meet Monday evening, January 11, 1892. At the adjourned meeting the committee for raising funds reported a guarantee of $3,500. The meeting adjourned to meet Thursday, February 4, 1892. The financial support necessary to endow the contemplated

school failing to materialize, the project, like all its predecessors, failed.

Success was finally attained by the physicians in Milwaukee in their endeavors to establish a medical school. In May, 1893, the *Wisconsin College of Physicians and Surgeons* was incorporated, and the following October the school opened with an attendance of 42 students.

The college started with a capital of $1500, which was gradually increased to $100,000. "In 1906 the stockholders surrendered all their holdings to the trustees of the college, and the faculty became more interested in the advancement of the students, than in making their stock pay dividends." (Frank). The college became a member of the Association of American Medical Colleges and was thus enabled to take its place with other nationally recognized medical schools.

Not satisfied with one medical school, in 1894 the *Milwaukee Medical College and School of Dentistry* was organized. It was not long before it was in trouble of one kind or another. Early in 1902 the Milwaukee County Medical Society accused it of granting "diplomas to men who were not properly qualified, that some had been authorized to practice medicine six months before the time they should have been entitled to a diploma, that courses were advertised by professors not connected with the school, that the law relative to preliminary education was evaded, that the examinations were inadequately conducted, etc., terming the existence of the college a menace to the reputation and good standing of the medical profession of the city and state."

At the 1902 meeting of the Association of Medical Colleges held at Saratoga, the charges filed by the Medical Society of Milwaukee County were submitted to the judicial council for investigation. At the 1903 meeting of the council at New Orleans, the charges of irregularities were sustained and the college was suspended. A plea for leniency having been made by the president of the Wisconsin College of Physicians and Surgeons, and by Dr. W. A. Evans, president of the Chicago Medical Society, the vote was reconsidered and the college was "severely censured."

In 1907 the college became affiliated with Marquette University. The affiliation, however, was a loose one, the University having no control over the admissions and teaching. The rating of the Milwaukee medical schools by the Council on Medical Education was in danger of falling into class C, its lowest rating. The students at the Milwaukee Medical College demanded that steps be taken to secure a higher rating. No satisfactory answer being obtained, "the entire student body marched to the Wisconsin College of Physicians and Surgeons and enrolled themselves there with the understanding that action would be taken immediately to make the changes required to obtain a higher rating." The Milwaukee Medical College and School of Dentistry then and there ceased to exist, much to the relief of Marquette University.

In 1913 the Wisconsin College of Physicians and Surgeons became a part of *Marquette University,* and out of seeming chaos a strong medical school was evolved which immediately took steps to acquire the class A rating of the Council on Medical Education. No other medical school exists in Milwaukee, and no other is necessary.

THE STATE UNIVERSITY

Returning now to the University of Wisconsin we find that students from the Pre-Medical Course who entered Rush, Northwestern, Western Reserve, Johns Hopkins, or the College of Physicians and Surgeons, New York, graduated with high honors. For years the first place in the graduating class at Johns Hopkins was held by Wisconsin graduates.

President Van Hise, in his 1904–05, biennial report to the Board of Regents, said: "The time has now come for the next step in the development of the University." Complete courses in medicine were given in the neighboring state universities of Michigan, Illinois, Iowa, and Minnesota; but "No provision has as yet been made at the University for the teaching of medicine."

The omission of medicine from the colleges at the University is all the more strange since in the act of the legislature in 1848 providing for the creation of the University of Wisconsin it was stated that there were to be four departments:

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Makers of Medicinal Products

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(*Sodium Iso-amyl Ethyl Barbiturate, Lilly*)

From the standpoint of the patient surgery is a never to be forgotten experience, but many disturbing recollections can be avoided when 'Sodium Amytal' has been judiciously administered preoperatively and postoperatively.

From the standpoint of the surgeon and the anesthetist 'Sodium Amytal' facilitates cooperation of the patient, reduces the quantity of general anesthetic required, and contributes to uneventful postoperative convalescence.

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Prompt Attention Given to Professional Inquiries

PRINCIPAL OFFICES AND LABORATORIES, INDIANAPOLIS, INDIANA, U. S. A.

1. The department of science, literature and the arts.
2. The department of law.
3. The department of medicine.
4. The department of the theory and practice of elementary education.

I fear neither President Van Hise nor the Board of Regents had carefully studied the actions of their predecessors. If they had done so, the omission of the department of medicine would not have seemed "strange."

Continuing, President Van Hise said later in his report: "Whatever have been the causes which have led to the present situation, they have not been unfortunate, for by concentration of the available resources of the University upon existing departments they have been made strong and efficient." This was accomplished, as in the past, at the expense of medicine.

As the first step in developing the department of medicine, Dr. C. R. Bardeen, at that time associate professor of anatomy at Johns Hopkins, was brought to Wisconsin in the fall of 1904, as Professor of Anatomy. Later he became the first Dean of the Medical School, and under his direction the various chairs in the school were filled.

In 1907 the College of Medicine was formally authorized, and the first year and part of the second year of medicine were given. From this time until 1925, the first two years of medicine were given at the University, the students going elsewhere for the two years of clinical work. In 1925 the full four years of medicine were established. Two years later, in 1927, the first class, consisting of 19 men and 6 women, was graduated from the College of Medicine.

Who initiated the movement that eventually led to establishing a full four-year medical school at Wisconsin? Let us go back to the meeting of the State Medical Society at Madison, June 1, 1886. In the published Transactions for that year we find that Dr. J. M. Dodson made the following statement: "A professor of the university requested me to bring before this society the question of the establishment in the university of a preliminary course of medical instruction." The society appointed a committee of five who was to confer with the Regents of the University. The result of the conference, as has been shown, led to establishing the "Special Course antecedent to the study of medicine." Who was the professor that requested Dr. Dodson to bring the question of establishing this preliminary course before the State Medical Society? I do not know. Nowhere is his name given. I have my suspicion, but suspicion proves nothing. However, as the result of his request, the University of Wisconsin has its Medical School, and it is a good one.

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Notice of Amendments

In accordance with the Constitution and By-Laws, official notice is hereby given that the following proposed amendments will be voted upon at the September, 1936, meeting of the House of Delegates of the State Medical Society of Wisconsin. Changes are in italics.

1. By the Committee on Resolutions, 1935 House of Delegates:

Amend Article IX of the Constitution to read:

Article IX. Officers. Section 1. The officers of this Society shall be a President, a President-Elect, a Secretary, a Treasurer, *Councilors from thirteen districts*, and a Speaker and Vice-Speaker of the House of Delegates.

CANNED FOODS AND THE PUBLIC HEALTH

V. FOOD IN THE OPEN CAN

• In September 1935, the facts about food in the open can were presented on this page. It was stated that there was no reason, from the standpoint of food poisoning, why food must be removed immediately after the can is opened. This statement bore the Seal of Acceptance of The Committee on Foods of the American Medical Association.

However, since that time, two incidents have occurred which lead us to present again the facts concerning food in the open can.

First, late last fall, a national organization dedicated to the relief of human distress during war and disaster, issued a list of precautions designed to reduce accidents in the home, in which it was erroneously recommended that food be removed from the can immediately. The Department of Agriculture detected this error and called it to the attention of those responsible for issuance of the recommendations. A correction was made as soon as possible but the damage had already been done. The original safety recommendations had meanwhile been issued in schools and newspapers throughout the country, thus giving further support to this old, unbased prejudice against canned foods.

Second, in the early months of 1936, a release regarding food in the open can was made by a national press service to newspapers throughout the land. The strong inference was made in this press release that food left in the open can might become hazardous to consumer health.

This dissemination of misinformation, referred to in the two instances cited above, has caused an increase in the number of consumer inquiries concerning the safety of food in the open can. To reply to these requests for reliable information, we can well quote from a recent release made by the Department of Agriculture (1).

(1) U.S.D.A. Press Release, Feb. 23, 1936

"It is just as safe to keep canned food in the can it comes in—if the can is cool and covered—as it is to empty the food into another container. Thousands of housewives are firm in the faith that canned goods ought to be emptied as soon as the can is opened, or at least before the remainder of the food goes into the refrigerator—one of the persistent food fallacies. The question keeps coming to the Bureau of Home Economics in letters from home-makers.

"A few acid foods may dissolve a little iron from the can, but this is not harmful, not dangerous to health. Cans and foods are sterilized in the 'processing'. But the dish into which the food might be emptied is far from sterile. In other words, it is likely to have on it bacteria that cause food to spoil.

"Whether in the original can or in another container, the principal precautions for keeping food are—Keep it cool and keep it covered."

AMERICAN CAN COMPANY

230 Park Avenue, New York City

This is the thirteenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Committee on Foods of the American Medical Association.

Sec. 2. The officers, except the Councilors, shall be elected annually. The terms of Councilors shall be for three years. *There shall be elected one Councilor for each of the thirteen districts except that in any Councilor District embracing a membership of 250 or more, there shall be elected one additional Councilor for each additional 250 members or major fraction thereof.*

As nearly as possible, one-third of the members of the Council shall be elected each year. The Secretary and Treasurer shall be elected by the Council. All these officers shall serve until their successors are elected and installed.

2. By Delegate Bowen of Jefferson County:

Amend Section 2 of Article IX of the Constitution by repealing all of said section 2 and re-creating section 2 to read as follows:

"Sec. 2. The President, President-Elect, Speaker and Vice-Speaker shall be elected by the House of Delegates. The Secretary and Treasurer shall be elected by the Council. Councilors shall be elected at a meeting of their respective district societies. Notices of election shall be incorporated in a mailed notice to the members at least seven days before such meetings.

"Election, where more than one nomination is received, shall be by ballot and a majority of votes cast shall be necessary to elect. Each candidate for councilor must be a resident of the district which it is proposed to represent and no person known to have solicited votes for or sought the office of councilor shall be eligible for the current election. Other procedure essential to the election shall be governed by Robert's Rules of Order.

"The officers, except the councilors, shall be elected annually. The terms of councilors shall be for three years and all officers shall serve until their successors are elected and installed. Terms of councilors shall expire in the following order:

"Third, fourth, fifth and sixth districts in 1937, seventh, eighth, ninth, tenth, and thirteenth districts in 1938, first, second, eleventh and twelfth districts in 1939, and thereafter shall be elected in order."

This amendment offered in 1935 is to be acted upon in 1936 and shall, upon adoption, be effective on January 1, 1937.

3. In event that the Constitution is amended by the amendment offered by the Committee on Resolutions to provide additional Councilors for populous districts, Delegate Bowen of Jefferson County then re-submits his Amendment 2 to provide for the inclusion of such new material in Amendment 1 as follows:

Amend Section 2 of Article IX of the Constitution by repealing all of said Section 2 and re-creating Section 2 to read:

Sec. 2. The President, President-Elect, Speaker and Vice-Speaker shall be elected by the House of Delegates. The Secretary and Treasurer shall be elected by the Council. Councilors shall be elected at a meeting of their respective district societies. There shall be elected one Councilor for each of the thirteen districts except that in any Councilor District embracing a membership of 250 or more, there shall be elected one additional Councilor for each additional 250 members or major fraction thereof. Notices of election shall be incorporated in a mailed notice to the members at least seven days before such meetings.

(The remainder of the amendment to be identical with the word in Delegate Bowen's original amendment printed above under 2.)

4. By the Secretary.

The following amendment to the Constitution is correctional, only for the purpose of supplying an omission.

Amend Section 2 of Article IX of the Constitution by adding the following sentence as the second sentence of the section:

"The President-Elect shall automatically succeed to the office of Presidency at the conclusion of his one year term as President-Elect."

5. By the Council.

Amend Chapter VII of the By-Laws "Committees" as follows:

In section 1. Change the words "A Committee on Scientific Work" to read "A *Council* on Scientific Work."

Repeal all of Sec. 2 and re-create Sec. 2 to read:

Sec. 2. The Council on Scientific Work shall be appointed by the Council of the Society in a manner and for terms to be designated by the Council. The Council on Scientific Work shall study the character and scope of the scientific proceedings of the Society and shall prepare the scientific program for the annual meetings. It shall likewise study the field of postgraduate education making available, so far as lies within its power, program material for such postgraduate education both through programs of component societies and in such other ways as it may find feasible.

(The purpose of this amendment is to provide a committee that is more comprehensive in membership than the present, that will work through longer continuity of its membership, and whose effort will be broader in scope than the formulation of annual meeting programs.)

6. By the Committee on Resolutions, 1935 House of Delegates.

Amend Article VI of the Constitution, "Council" to read:

The Council shall be the Board of Trustees of this Society. The Council shall have full authority and power of the House of Delegates, between annual

PHYSICIANS' EXCHANGE

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THE JOURNAL BOOK SHELF

BOOKS RECEIVED FOR REVIEW

Interpretation of Laboratory Findings. By Raymond H. Goodale, M.D., pathologist, City Hospital, Worcester, Mass. Price $2.25. F. A. Davis Co., Philadelphia.

The Harvey Lectures. Delivered under the auspices of The Harvey Society of New York, 1934–1935, under the patronage of the New York Academy of Medicine. The Williams & Wilkins Company, Baltimore.

The International Medical Annual. A year book of treatment and practitioner's index. Fifty-fourth year. William Wood & Co., Baltimore. Price $6.00.

Cardiovascular Disease. By J. H. Schrup, M.D., Dubuque, Iowa.

Clinical Heart Disease. By Samuel A. Levine, M.D., assistant professor of medicine, Harvard Medical School. Cloth, $5.50 net. W. B. Saunders Company, Philadelphia.

Passive Vascular Exercises. By Louis G. Herrmann, M.D., assistant professor of surgery, College of Medicine of the University of Cincinnati and the Cincinnati General Hospital. J. B. Lippincott Co., Philadelphia.

The Baby and Growing Child. By Louis Fischer, M.D., consulting physician to the Willard Parker Hospital, New York, N. Y. Funk & Wagnalls Co., New York, N. Y.

Diseases of the Respiratory Tract. Clinical lectures of the eighth Annual Graduate Fortnight of the New York Academy of Medicine. By twenty-one contributors. W. B. Saunders Co., Philadephia, 1936. Cloth $5.50 net.

The Single, The Engaged and The Married. By Maurice Chideckel, M.D. Eugenics Publishing Company, Inc., New York.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

Synopsis of Clinical Laboratory Methods. By W. E. Bray, M.D., professor of clinical pathology, University of Virginia. Price $3.75. C. V. Mosby Co., 3523–25 Pine Blvd., St. Louis, Missouri.

The object of this book is "to bring together within a small volume the more recent information and the most frequently used methods of laboratory diagnosis." The author has, indeed, collected together most of the commonly used tests. In the brief span of 300 pages he has covered sixteen divisions of laboratory practice. The chapters on poisons and foreign material, allergy, water and milk analysis, basal metabolism and surgical pathology are welcome additions to the usual laboratory manual. The presentation of the tests is adequate; the index is good, and the illustrations are numerous and well chosen.

However, in a book as small as this, it is obviously impossible to include more than a minimum of discussion as to the significance of the tests. In the opinion of the reviewer, this seriously limits the usefulness of the book for both students and practitioners. In small laboratories, it will provide a useful reference for tests which are not commonly used. W. E. B.

An Index of Differential Diagnosis of Main Symptoms. By various writers. Edited by Herbert French, M.D., consulting physician to Guy's Hospital, London. Fifth edition. Price $16.00. William Wood and Company, Baltimore.

The purpose of this fifth edition, like the previous four predecessors, is to offer to the general practitioner of medicine an indexed encyclopedia of symptoms and signs as an aid to directing him to a correct diagnosis. It covers the entire field of surgery, gynecology, ophthalmology, dermatology and neurology. It differs from the previous editions in that the newer diagnostic aids which appeal to the author as being of permanent value are added and in its presentation of the refinements of older techniques.

Eighteen contributors in addition to French himself have aided in the development of the volume. As stated by the author, symptoms are not only indexed alphabetically but a discussion of each increases the usefulness of the book as an aid in differential diagnosis. Synonyms are included with cross references and a general index of diseases is presented with cross references to symptoms. This arrangement makes the subject material more readily available than any other book in the experience of the reviewer.

In covering so extensive a field in a single volume it is obvious that the discussions of various symptoms must necessarily be brief and lacking in a discussion of the various viewpoints of controversial

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material for which it must be assumed the reader will refer to other works to supplement his information. The statement without further qualifications that arteriosclerosis is one of "the two main serious conditions causing high systolic blood pressure" is an example of the danger of such brevity.

Of especial value are the illustrations of which there are 742. One-hundred ninety-six of these are in colors accurately portraying such divergent fields as the more common conditions affecting the eyegrounds and blood smears of the various blood diseases.

So well known to the profession generally are the previous editions of which there have been over 53,000 copies issued, that the present edition should need no further recommendation than the statement that it brings up-to-date the material presented earlier. K. L. P.

Examination of the Patient and Symptomatic Diagnosis. By John Watts Murray, M.D. Second edition, price $10.00. C. V. Mosby Co., 3523–25 Pine Blvd., St. Louis, Mo.

This book has been written for the specified purpose of aiding in making quicker diagnoses. It is made up of material that one might find in the average textbook on medicine with almost every subject an added series of questions pertinent to that subject. These questions, a part of every complete history, add nothing of interest and little of value to the book. Suggestions as to physical examination and laboratory procedures essential to the diagnosis of each subject are discussed. These, however, add nothing to the complete physical examination and they suggest nothing unusual in laboratory procedure. In general no particular aid to quicker diagnosis is detected in this book and rather would I feel that more aid could be obtained from any number of good standard medical textbooks. F.L.W.

TULAREMIA

(Continued from page 45)

Disinfect the patient's ulcer, sputum, conjunctival secretion and purulent exudate draining from supporting lymph nodes. It is not necessary to isolate or quarantine the patients.

Specific therapy: Empirical and merely symptomatic treatment of tularemia should be discontinued. Intravenous chemotherapeutic agents such as quinine, iodides, mercurochrome, neoarsphenamine, acriflavine have been tried and have proved to be of no value. Exposure of the primary lesion to x-ray has not changed the course of the disease. Immunotransfusions have specific therapeutic value but it is usually difficult to find donors who have had the disease.

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Those who are courageous with the knife should be warned that it is dangerous to excise primary lesions. Incising or excising non-suppurating enlarged lymph glands is of no value to the patient. However, it is advisable to incise suppurating lymph glands. The most satisfactory application for primary ulcers is a wet dressing of half-saturated commercial urea.

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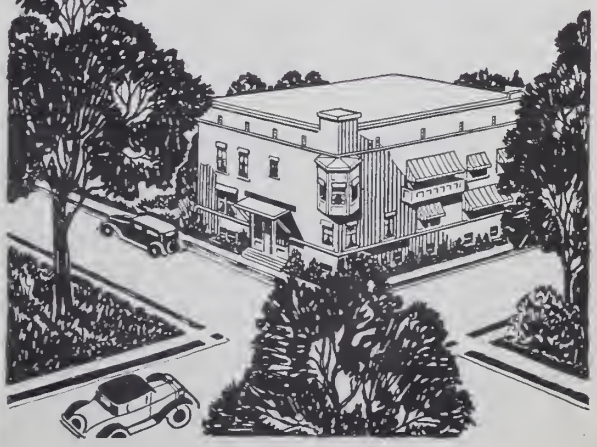

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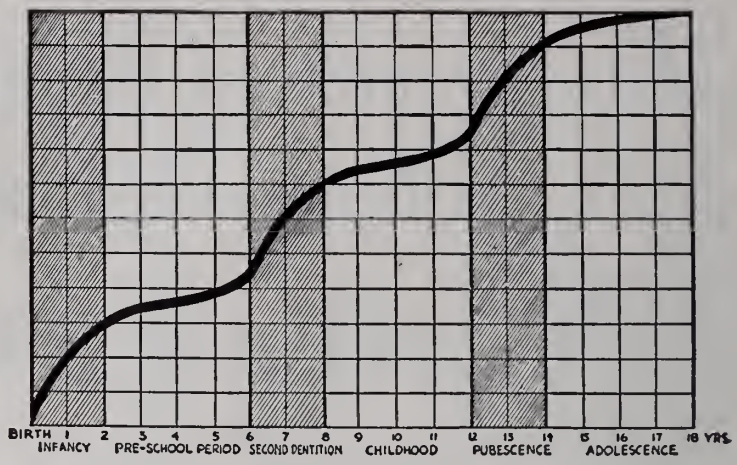

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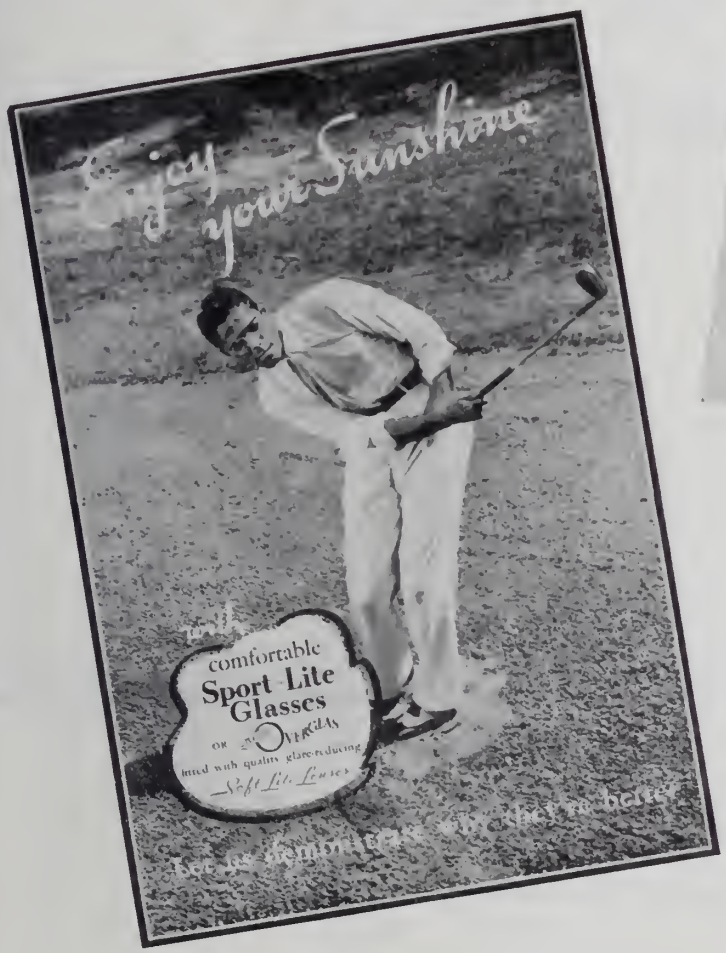

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In diarrhea, "Carbohydrates, in the form of dextri-maltose, well cooked cereals or rice, usually can be handled without trouble."—*B. B. Jones: A discussion of some of the commoner types of infantile diarrhea, and the principles of the diets used in their treatment, Monthly, 66: 411-...*

"The most desirable sugar is dextri-maltose, because of all the sugars maltose is least apt to ferment."—*A. I. Blau: The use of protein milk ... April 2,*

Concerning the treatment of diarrhea, "If the weight remains stationary, it is an indication that loss of substance is occurring through the stools, mostly in the form of alkaline salts. To equalize this loss of substance, the diet must be increased, but in such a way as to avoid causing fermentation. This may be done by adding dextri-maltose and preparations of protein to the food, increasing the calories until the infant is taking 160 calories per kilo. of body weight."—*H. L. Rotnoff: Nutritional disturbances, Arch. Pediat., 41:771 Nov., 1924.*

Regarding the treatment of diarrhea, "In our experience, the most satisfactory carbohydrate for routine use is Mead's dextrimaltose No. 1."—*F. R. Taylor: "Summer Complaints," Southern Med. & Surg., pp. 555-559, August, 1927.*

In cases of diarrhea, "For the first day or so no sugar should be added to the milk. If the bowel movements improve carbohydrates may be added. This should be the one that is most easily assimilated, so dextri-maltose is the carbohydrate of choice."—*W. H. McCaslan: Summer diarrheas in infants and young children, J. M. A. Alabama, 1:278-282, Jan., 1932.*

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... it by dextri-maltose, such as Mead's Nos. ... where the maltose is only slightly in excess ... dextrins, thus diminishing the possibility ... —*W. J. Pearson: ... Graduate Med. ...*

"... I begin to add carbohydrates slowly, by replacing ¼ ounce Casec every two days with ¼ ounce of Dextri-Maltose, preferably Dextri-Maltose Number one. As a rule, this is tolerated. When one ounce of Dextri-Maltose is used, the Casec, of course, should be discontinued."—*J. W. Reed: The etiology and ...*

"When sugar causes diarrhoea one can change the form of it. Mead's Dextrimaltose in small doses is more quickly absorbed and so superior to castor (cane) sugar. Lactose is expensive and seems not to be better than castor sugar."—*H. B. Gladstone: Infant Feeding ...*

"Milk-sugar, which has been so extensively used in the past, should never be used where there is any digestive disturbance. It is not as easily digested as either cane-sugar (granulated sugar) or dextri-maltose. The latter is the best of all sugars to use, especially if there is any tendency to looseness of the bowels."—*A. Brown: The Normal Child; Its Care and Feeding, F. D. Goodchild Company, Toronto, 1923, p. 120.*

In cases of malnutrition and indigestion, "The appetite improves rapidly, and the stools soon become normal in appearance, if the sugars are intelligently prescribed. By this I refer to proper proportions of dextrin and maltose. When there is a tendency to looseness, I have used ... —*M. Ladd: Furl ... Infants and children, Arch. Pediat. ... 1933.*

"After the preliminary short period of starvation, protein milk should be used. . . . When the diarrhoea has been sufficiently checked, dextri-maltose may be added and gradually increased until from 4 to 6 tablespoons are being used."—*W. L. Denney: Acute nutritional disturbances of infancy, Univ. West. Ontario M. J. 2:152-157, April, 1932.*

"... use a preparation with a high dextrin and relatively low maltose content, as Mead's dextri-maltose."

"If it is desired to feed an unusually large amount of sugar to a baby, it is well to use a maltose-dextrin preparation, as in this way there is less danger of bringing about sugar fermentation than if lactose were used."—*L. W. Hill: Practical Infant Feeding, W. B. Saunders Co., Phila., 1922, p. 206.*

"The young ... ture, usually one-third ... ally skimmed at first, and a half ... We prefer Dextri-Maltose as the carbohydrate ... most easily digested. . . . Preparations containing the more maltose are more rapidly absorbed, but on the other hand, are more liable to produce diarrhea. . . . Lactose which was very popular at one time, is never used in our work. The consensus of opinion seems to be that milk sugar is often a source of indigestion in normal infants and the primary cause of fermentative dyspepsias in ... —*J. H. Reading, Jr.: Artificial ... Infant during the first year ... April 1923.*

"Protein milk may be continued for several weeks when a gradual transition to a whole milk or evaporated milk formula, which will supply about one and one-half to two ounces of whole milk to every pound of body weight, is reached. This also should finally have the addition of dextri-maltose amounting to five to seven per cent."—*R. A. Strong: Summer diarrheas in infancy and early childhood, Arch. Pediat. 47:344-354, June, 1930.*

... ated as the ... by the carbohydrate. It ... ally if given beyond 6 ... rhoea in many infants. ... avoided and if it is de- ... unt of carbohydrate, it is ... actose by dextri-maltose ... best to partly ... and 2). In our view cane-mixtures (Mead's Nos. ... sugar is less suitable than lactose, and if for any reason there is objection to the use of lactose, ... is obtained by the addition of carbohydrates, while fat and casein are reduced. For this purpose dextrimaltose and flour are better than the ordinary sugars, since they are more slowly absorbed and have greater efficacy in their powers of controlling the flora in the large intestine."—*W. J. Pearson ... W. G. Wyllie: Recent Advances in Diseases ... Blakiston's Son & Co., Phila., 1930.*

For cases of fermentative diarrhea, ". . . the ideal plan of treatment would be to give a food which is low in sugar (the food which that group of organisms thrive on) and high in protein. Calcium caseinate milk accomplishes this purpose. In our series of cases, we found it was necessary to use the casein calcium for from 5-8 days; we then stopped it and added dextri-maltose to the formula."—*A. G. DeSanctis and L. V. Paider: The value of calcium caseinate milk in fermentative diarrhea, Arch. Pediat. ...*

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VITAMINS IN CANNED FOODS

I. VITAMIN C

• The history of scurvy is as old as the history of exploration and conquest. Its ravages among early explorers and invaders are recorded in the oldest pages of history, due principally to the fact that during extended sea voyages or treks by land, dependence had necessarily been placed almost entirely on foods preserved by the crude methods of the day.

Scurvy was the first vitamin deficiency disease to be controlled by dietary management. In 1757, Lind recognized the fact that some substance in foods exerted a specific protective action against scurvy (1). As early as 1804, the daily lime juice ration became compulsory in the British Navy (2).

However, it remained for modern biochemical science to establish the chemical identity of this antiscorbutic factor. Vitamin C is now known to be identical with cevitamic acid (levo-ascorbic acid) and is as yet the only vitamin to be synthesized in the laboratory (3).

There would appear to be no valid reason why scurvy should ever constitute a serious threat to the health of the average American infant or adult. Development of refrigerated transportation for raw foods and improvements in modern methods of food preservation, specifically canning methods, make available to the consumer during the entire year a large variety of foods possessed of valuable vitamin C contents. In addition, the modern trend towards education of the layman, in regard to the vitamin C requirements of both the infant and the adult, should also assist in complete eradication of infantile and adult scurvy from America.

Many canned foods are to be valued as contributors of vitamin C. Nutritional research has indicated that canned products such as the citrus fruits or citrus fruit juices (4), the more common fruits (5), and vegetables or vegetable juices, are important sources of the antiscorbutic factor (6). Modern canning procedures afford a good degree of protection to this labile vitamin, with the result that the canned food can be relied upon to supply amounts of vitamin C to the diet consistent with the amounts of the vitamin originally contained in the raw food from which it was prepared.

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(1) Vitamins: A Survey of Present Knowledge. Page 187 Medical Research Council, Special Report 167. 1932. His Majesty's Stationery Office, London.
(2) Vitamins in Theory and Practice. Page 86, L. J. Harris, 1935. Macmillan, New York.
(3) 1933 J. Chem. Soc. *136*, 1419.
(4) 1930 J. Home Econ. *22*, 588.
(5) 1935 Amer. Jour. Pub. Health, *25*, 1340.
(6) 1933 Ind. Eng. Chem. *25*, 682.

This is the fourteenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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Symposium on Carcinoma of Rectum and Rectosigmoid

The Pathology of Carcinoma of the Rectum and Rectosigmoid*

By GARNER SCULLARD, M. D.
Eau Claire

CANCER of the large bowel is very common. It is the fifth most frequent cancer in the body and makes up about 8% of all cancer. The distribution of cancer throughout the whole intestinal tract is very remarkable—about 45% of the growths occur in the rectum, nearly 50% in the colon, and 3 to 4% of the duodenum, while the 20 odd feet of jejunum and ileum contribute only 3% of the total. We would be lacking in scientific curiosity if we did not ask the reason for this difference in incidence, and, in the absence of definite knowledge, I would like to spend a few minutes in theoretical considerations.

From the vast amount of work that has been done on cancer, it appears that there are two etiological factors concerned in its production. One is an inherent tendency on the part of the cells to undergo malignant changes and this we may call the intrinsic factor. The other is continued overstimulation of the cells, usually by some form of chronic irritation, and this we may call the extrinsic factor.

Maud Slye's work has proved that in mice at least the intrinsic factor is hereditary, and by selective breeding she has developed strains in which the incidence of cancer is very high and other strains in which the disease is extremely rare.

In human beings it is difficult to get a history covering more than two generations, and the hereditary factor has never been firmly established but the literature contains many records of families showing an exceptionally high incidence of cancer for many generations. Those who disbelieve in the hereditary nature of cancer explains this as due to coincidence and it is true that, with a disease as common as cancer, the laws of chance would account for some remarkable coincidences.

Much more striking than the hereditary factor is the congenital tendency of the disease. By congenital I mean that the offspring of a certain mating may show some peculiarity which is not necessarily transmitted to further generations. Almost every medical man has seen identical cancers in two or more members of a family. In the last two years I have seen cancer of the colon in two brothers and cancer of the breast in two sisters, the latter being women in the early thirties. In a recent article in the A. M. A. Journal, Roberts reports osteogenic sarcoma in a brother and two sisters and glioma of the retina has been reported in 10 of 16 children. These things can hardly be explained as coincidence.

According to Cohnheim's theory, the cells which are predisposed to malignancy are embryonic cell rests. That is to say, cells which early in embryonic life are arrested in development either by interferences with blood supply or pressure of surrounding cells, and, instead of developing into the mil-

* Presented before 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, September, 1935.

lions of cells which they would normally have produced, lie dormant unless the influences restraining their growth disappear. Then they will resume their embryonic growth capacity. We might draw a comparison here to spirochaetes lying dormant in the brain for twenty years and then taking on renewed virulence to cause paresis or a gumma. We know that such cell rests are quite common, occurring mostly where embryonic development has been complex as in glands and at lines of fusion of tissues. Such cells would be the result of accident and not of heredity or congenital influence.

Although we are on highly controversial ground in considering the intrinsic factor there is no doubt that chronic irritation plays an important role in the production of many cancers. Mechanical irritation is probably a rare cause, and attempts to cause cancer in experimental animals by crushing or bruising tissue have been uniformly unsuccessful. Ewing, in a recent review of the subject, finds little evidence in favor of a traumatic origin of cancer but when we see cancer of the buccal mucosa opposite an old snag of a tooth, and when we find gall stones in close to 100% of cancers of the gallbladder, we can hardly disregard this factor entirely.

With chemical irritation experimental work has been most striking. A number of substances have been used with indifferent success, but with certain coal-tar derivatives, notably dibenzanthracene, cancer of the skin has been produced so regularly as to leave no room for doubt. Clinically, there are a considerable number of cancers which can be traced to chemical irritation. Chimney-sweeps' cancer and arsenical cancer of the skin belong in this class, and cancer of the lip has been reported as very frequent among certain groups of fishermen who hold tarred twine in their mouths while mending nets.

Bacterial inflammation must also bear its share of responsibility. Cancer of the cervix uteri is usually preceded by chronic endocervicitis, and a considerable proportion of stomach ulcers become malignant. Cancer of the stomach has also been produced in rats by feeding them with cultures of certain organisms.

Finally, physiological overstimulation may be the immediate excitant and cancer of the breast has been produced in mice by prolonged use of theelin, and, conversely, regression of cancer of the breast has occasionally been noted after removal of both ovaries.

It would seem, then, that to produce cancer the extrinsic and intrinsic factors must be present in inverse proportion to one another. That is to say, that in a highly susceptible individual it would require only a very slight irritation, perhaps even the normal physiological stimuli might suffice whereas in a resistant individual the severest form of continued irritation might fail to invoke malignant changes.

Now can we apply any of this knowledge to explain why cancer is common in the large bowel and rare in the small. I believe the best way to attempt this is to analyze the conditions present in the large bowel and compare them when possible with conditions in other organs where cancer is common, and, on the other hand, to contrast them with conditions in the small bowel where cancer is rare.

Anatomically and physiologically there are no real differences between the large and small bowel; both are hollow, muscular tubes lined by a single layer of columnar epithelium. There are minor differences in the arrangement of lymph tissue and muscle fibres but for the purpose of this discussion these can not be considered important. Embryologically there is one feature that must be noted. Early in development the lower end of the bowel expands to form the cloaca and shortly afterwards a septum appears which constricts off the anterior portion to form part of the urogenital tract. It is in just such a position that we would expect to find misplaced embryonal tissue, and seventy-five per cent of the cancers of the rectum originate on the anterior surface.

When we consider the large and small bowel with regard to chronic irritation we find a number of different influences. The contents of the small bowel are fluid and alkaline in reaction and gram positive organisms, chiefly streptococci, predominate. The contents of the large bowel are semisolid or solid, neutral or acid in reaction and the pre-

dominating organisms are gram negative bacilli with many putrefactive bacteria. The large bowel is chiefly for dehydration and storage of feces so that it is alternately distended with contents or collapsed and empty with irregular periods of overdistention. If we look about for comparisons we find that the stomach and the cervix uteri, the two organs in which cancer is most common, are both bathed in acid secretion and that the stomach is subjected to the same irregular distention or overdistention with solid or semisolid contents.

THE LARGE BOWEL

Theoretically there is no organ in the body more likely to develop cancer than the large bowel. It is subjected to all three kinds of irritation which we know can cause cancer. There is the mechanical irritation of irregular distention; the chemical irritation of products of putrefaction and the bacterial irritation of vast numbers of different bacteria. Although we have no proof of the importance of any of these factors they supply us with an interesting field for speculation and investigation.

With the exception of an occasional squamous-celled cancer of the anus, all cancers of the large bowel originate from the columnar epithelium lining the mucous surface and intestinal glands, but, in spite of this, they exhibit marked variations both in gross appearance and microscopic architecture. The question then arises if there is any value in attempting to classify these growths or if we should simply call them all cancers of the large bowel and let it go at that. Experience has proved that these different growths have different clinical courses so that classification becomes a matter of considerable importance from the point of view of prognosis.

Grossly there are a number of things to be noted. As we pass from the caecum to the rectum, growths become not only more frequent but more malignant, so that a cancer of the rectum has a graver prognosis than one of the ascending colon. In general, the cancers are of a low grade of malignancy and metastases are late. Frequently we see an extensive local growth without involvement of distant organs, and, with early diagnosis, the expectancy of a five-year cure is very good. The general rule that young subjects withstand carcinoma very poorly holds good here as in other parts of the body, and the finding of affected lymph nodes reduces the expectancy of a cure by at least 50%.

Many of the symptoms we see in these patients are due to obstruction and not to carcinoma itself. The bowel above the growth becomes inflamed and thinned out and this should always be considered when attempting the one-stage operation. Sutures which are subjected to any tension readily tear through this friable tissue. It is important to note whether the cancer tends to grow superficially or to invade the wall of the bowel. The superficial growths are much less malignant. They produce bulky growth, often pedunculated, which protrude into the lumen of the bowel and so cause obstruction. The edges are quite well defined and the transition from malignant to normal tissue is abrupt. Later on, ulceration may destroy the bulk of the superficial growth making recognition of the type more difficult.

The infiltrating growths invade the wall of the bowel causing considerable thickening and fibrosis, and, as soon as the whole circumference of the bowel is involved, contraction of fibrous tissue causes obstruction in a manner differing from the obstruction of the superficial growths. The edges of this growth are not sharp and it is sometimes difficult to tell its exact extent. Extensive ulceration occurs in this type also.

Even more important than the gross appearance is the cellular structure of the tumor as revealed by the microscope. It has long been recognized that the slow growing relatively nonmalignant tumors tend to reproduce the adult cells of the tissue from which they originate while in the highly malignant tumors the cells tend to lose their identity and approach the undifferentiated embryonic type. In classifying the growths, most pathologists have used a nomenclature which attempts to describe as nearly as possible both gross and miscroscopic features. Ewing recognizes three main types and several others of lesser importance. Of the major types, the most common and fortu-

nately the least malignant is the malignant adenoma. This growth is superficial and microscopically shows hyperplastic glands which must often be studied quite carefully to make a diagnosis. The results of treatment are very satisfactory. The other two types, stenosing fibro-carcinoma and gelatinous adeno-carcinoma, are much more malignant and yield discouraging results with all methods of treatment. Unfortunately all pathologists do not use the same nomenclature and the literature is burdened with a great variety of names which do not convey any idea or relative malignancy to anyone not specializing in pathology.

GRADING METHODS

Some years ago Broders and MacCorley introduced their method of grading tumors, and, while it sacrifices something in descriptiveness, it gains a great deal in simplicity. They divide all tumors into four arbitrary groups largely according to the percentage of undifferentiated cells present. This method has been the subject of considerable controversy. Some men have accepted it with great enthusiasm while others have condemned it as useless. The truth is somewhere between these two extremes of opinion, and, while it is undoubtedly not the final solution to the problem, it is of definite value is used in addition to other important features, such as the duration of the disease, involvement of lymph nodes and the general clinical picture.

If we use any method of grading, we must recognize the fact that all such methods have very definite limitations for several reasons. One is that the malignancy of any given tumor is not a fixed quantity but varies from month to month. It is a matter of common experience that a tumor may remain almost stationary for many months and then, without apparent reason, start to grow with alarming rapidity while less frequently a patient with a rapidly growing tumor may surprise us by living several years. Another source of error lies in the fact that the microscopic appearance varies in different parts of the same tumor. The bulk of the tumor may show a low grade malignancy, but careful search will often show small areas of much greater malignancy. As it is physically impossible to make sections of all parts of the tumor, we may easily miss the grade-three part of an otherwise grade-one tumor.

For these and other reasons, it may be seen that the grading of tumors may frequently fail as far as the individual case is concerned. A patient with a grade-one malignancy may die just as quickly as one with a grade-four tumor, but if we take comparative series of the two groups we will find a definitely higher percentage of cures in the grade-one series.

In a review of 753 operative cases at The Mayo Clinic, Rankin gives the following statistics with regard to 5-year cures in the different groups: Grade one—69%; grade two—51%; grade three—31%; and grade four—24%.

In addition to its value in prognosis, I believe that grading may be used with advantage as a guide to treatment in certain cases.

SURGICAL PROCEDURE

At the present time it is considered good surgery to remove all operable growths of the large bowel. It is not good surgery, however, to take a case of doubtful operability and expose the patient to operative mortality and prolonged convalescence and have him die as quickly as though no operation had been performed. Such a patient would undoubtedly get more benefit from radiation therapy, and occasional cures by this method are reported even in highly malignant growths.

It is easy to tell the frankly operable and the frankly inoperable cases but in between there are a certain percentage in which the greatest judgment is required to determine the best method of treatment.

Over fifty per cent of the growths of the large bowel are within the reach of the proctoscope and therefore available for biopsy. In spite of the theoretical objections to cutting into malignant tissue, both experimental work and clinical experience prove that the practical danger is slight. In this group of tumors most patients will have more or less stenosis and the tumor is daily subjected to

the mechanical pressure of the patient's efforts to force feces through the narrowed orifice. Surely if this constant massage does not produce mestastases, the excision of a small piece of tissue is not liable to do so.

It is a simple matter to do a biopsy and have a microscopic study of these cases of questionable operability. Then I would say, all other things being equal, we may use our surgery on the low grade malignancies and treat the others by radiation, either x-ray, radium, or both.

The Diagnosis of Carcinoma of the Rectum and Rectosigmoid*

By A. G. SCHUTTE, M. D.
Milwaukee

THE vital statistics of the United States for 1933 show that one out of every ten deaths was due to malignant disease. In Wisconsin, in 1934, one out of every eight deaths was caused by malignant disease. About forty per cent of all cancer deaths in the United States in 1933 was due to malignancies of the gastro-intestinal tract. Second to the stomach, the rectum is the most vulnerable organ for the growth of cancer in this region.

Rectal and rectosigmoid carcinomata occur most often in persons between the ages of fifty and sixty-five years, but may occur at any age. Rarely do they occur in persons younger than twenty years of age. The relative occurrence in males and females is in the proportion of three to two.

The patient's life depends upon the early recognition and proper treatment of cancer. Experience reveals that the majority of cases of cancer of the rectum and rectosigmoid reach the surgeon in the advanced stages of the disease. There are various conditions and reasons for this. The early symptoms of the disease are often slight and easily overlooked. There is the lack of interest and knowledge concerning rectal diseases by the patient and the physician. To quote Dr. Frank L. Rector:

"The physician first seeing a patient with cancer determines largely the outcome of the case. If the physician recognizes malignancy or the possibility of malignancy, and proceeds to 'find the answer,' the life of the patient will undoubtedly be saved or greatly prolonged beyond what would be the case if the physician temporizes and indulges in some watchful waiting to see if the condition will not diagnose itself by means of metastases or *other* obvious signs. There are two periods in the experience of the patient with cancer that largely determine the outcome of each case: one, the time elapsing after the patient knows or thinks something is wrong and a physician is consulted; the other, the time wasted by the physician in waiting for more definite signs or symptoms that will make the diagnosis easier. The period of waiting by the patient can be excused in many cases because of ignorance or fear on his part; that of the physician, never."

Shyness and false modesty in regard to consulting with a physician about rectal trouble are undoubtedly great causes of delay in the examination and treatment.

The patient commonly attributes rectal discomfort, with or without bleeding, to "piles" and usually treats himself with various advertised "pile" and constipation remedies. This self-treatment usually proves unsatisfactory and the patient may visit an advertising "pile-specialist's" clinic where incorrect and incomplete diagnosis is made which results in further delay.

There is a lack of knowledge and confidence concerning the safety and satisfactory results of early competent treatment. Indifference and lack of knowledge by the physician regarding cancer of the rectum and rectosigmoid are due to lack of training in the diseases common to the rectum.

* Presented before 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, September, 1935.

EARLY SYMPTOMS

As a rule, early symptoms of carcinoma of the rectum and rectosigmoid are vague. The indefiniteness of the early symptoms is due partially to the large calibre of the rectum and the lack of sensory nerve endings in the bowel mucosa, but particularly to the insidious nature of the disease. The later symptoms are more definite and dependable; because, as the tumor increases in size and encroaches on the lumen of the bowel as well as infiltrates deeper and wider in the wall, the lumen becomes narrowed, the wall fixed and the function of the bowel is impaired. The progressive enlargement of the tumor results in an increasing amount of obstruction which causes increased trauma by the fecal current to the protruding tumor mass. Trauma results in infection and ulceration which in turn result in toxemia and hemorrhage and the formation of mucopurulent exudate. The symptoms of obstruction, namely, constipation or constipation alternating with increased frequency of stools, flatulence, borborygmus, occasional loss of appetite associated with nausea and vomiting and abdominal discomfort, become more obvious as the disease advances.

A common symptom of either an early or an advanced case of cancer of the rectum or rectosigmoid is change in bowel habit. If the case is early, the patient may notice an uncomfortable feeling or urge to empty the bowel at intervals more frequent than usual; or he may notice that he has gradually but progressively and persistently become constipated. In advanced carcinoma of the ampulla of the rectum, which invariably has become ulcerated and infected, the uncomfortable urge to empty the bowels as well as the number of stools is markedly increased. This condition may have been present for months. If the carcinoma is situated at the rectosigmoid, constipation with obstructive symptoms is more likely to predominate because the juncture of the rectum and sigmoid is anatomically narrower and the growth tends to become annular and constricting. In cases of carcinoma of the rectosigmoid, it is not uncommon that patients be seen for the first time, suffering with complete obstruction. In the history, the patient will probably relate that he has had chronic constipation, abdominal discomfort, gurgling and gas pains, at times associated with bloating, which he managed to temporarily relieve by the use of mineral oil or some cathartic taken at regular intervals.

The symptom of blood in the stool is an important one, and would lead to early diagnosis of carcinoma of the rectum and rectosigmoid if proper interest and concern were taken by the patient. Regardless of whether the tumor be early or late, large or small, hemorrhage is one of the most constant findings. The blood is usually associated with mucopurulent material and stool, but at times the hemorrhage may be severe and the patient may expel clear blood. If every physician would consider it a rule that bleeding from the rectum means carcinoma instead of anal fissure or hemorrhoids until carcinoma has been excluded, many more tumors of this region would be recognized early.

Local pain at the site of the growth is seldom an early manifestation of carcinoma of the rectum or rectosigmoid, but is present more commonly in the later stages of the disease. Growths in the lower rectum which encroach upon the anal canal or actually invade it cause pain early because the canal is well supplied with sensory nerve endings. Pain in the sacral region or down the legs occurs when the growth causes pressure on the sacral nerves. Pain in advanced cases may be due to the involvement of adjacent structures such as the prostate or cul-de-sac of Douglas, or to complications such as perforation with abscess formation.

Tenesmus, or straining at stool, is significant only when the growth is low in the rectum and proximal to, or involving, the anal canal.

Loss of weight, strength, and secondary anemia are very late symptoms of the disease and are usually due to chronic obstruction, toxemia or metastases. One must always bear in mind that early cancer will commonly be found in robust, healthy-appearing individuals rather than in patients who are underweight and in poor health.

Given a patient with any change in bowel habit or sensation which persists over a period of weeks, or a patient with blood in the stool, a positive diagnosis of carcinoma of the rectum or rectosigmoid can be made by thorough digital and sigmoidoscopic examination. One should remember that seventy-five per cent of all tumors of the rectum can be palpated by careful digital examination. The Sims' position affords the examiner an excellent chance to make a good inspection and manual examination. If the lower rectum contains feces, one must repeat the examination after the patient has had a cleansing enema.

EXAMINATION

In making a digital examination, one must sweep his finger over the entire circumference of the rectal mucosa from the proximal end of the anal canal upward to the full length of the finger. Adeno-carcinoma manifests itself as a protruding growth of the mucous membrane, which is usually nodular and has a firmer consistency than the adjacent normal mucosa. If the growth is low in the ampulla of the rectum, one may be able to palpate its entire outline, and thereby determine its exact position. Fixation of the growth as well as the degree of obstruction should be determined. Occasionally one encounters pedunculated adenomata, single or multiple, in which case considerable mobility of the tumor will be felt because of its attachment by a flexible stem to the mucosa.

Sigmoidoscopic examination should not be attempted unless the patient's rectum and sigmoid are clean. Careful examination with the sigmoidoscope, of the entire rectal and rectosigmoid mucosa from the anal canal to the limits of the length of the instrument should reveal the presence of tumor growths within this area in one hundred per cent of the cases.

The tumor area will appear elevated with respect to the surrounding mucosa, and will have a different color. The color will vary with the size and type of the growth and the amount of infection of its surface. If the tumor surface is rubbed, it will feel firm, and will usually bleed easily.

The sigmoidoscope provides an easy means to obtain a biopsy for verification of the diagnosis. If the tumor mass be a pedunculated polyp, it may easily be entirely removed through the proctoscope for pathologic study. Biopsy makes it possible to grade the tumor, which information is invaluable at times in determining the course of the treatment, and is an aid in prognosis. While roentgenographic examination is invaluable in diagnosis of carcinoma above the limits of the sigmoidoscope, it is almost useless in the examination of early tumors of the rectal ampulla and rectosigmoid. Early carcinomata of this region have been overlooked because the physician has prescribed x-ray study of the colon without doing a sigmoidoscopy. Where cancer of the rectum or rectosigmoid is suspected, digital and sigmoidoscopic examination should always precede barium enema and roentgenographic study. In cases of cancer elsewhere in the colon, sigmoidoscopic examination is essential for a survey of the rectum and rectosigmoid for possible multiple lesions. Conversely, in cases of cancer of the rectum barium enema examination is indicated in the search for multiple lesions of the colon.

Complications of cancer of the rectum and rectosigmoid occur late in the course of the disease. Ulcerated or abscessed carcinoma of the rectosigmoid may perforate into the peritoneal cavity and cause generalized peritonitis, or into an adjacent loop of bowel or the bladder and produce a fistula.

DIFFERENTIAL DIAGNOSIS

Change or irregularity of bowel habit, vague rectal distress, pain or bleeding, are symptoms which may be present in cases of hemorrhoids, anal fissure or ulcer, squamous-cell carcinoma of the anal canal, single or multiple polyps, rectal stricture, chronic ulcerative colitis, tuberculous colitis, amebiasis, diverticulitis of the sigmoid and functional disorders such as irritable colon.

Thrombosed internal hemorrhoids are usually accompanied by acute rectal pain and are generally multiple. They have an acute onset, are circumscribed tender areas and are covered by smooth rectal mucosa unless ulcerated, while cancer is an indurated

growth of the mucosa. Doubtful tumor areas resulting from the injection treatment of internal hemorrhoids can be differentiated by biopsy.

Fissure or ulcer of the anal canal or ulcerated crypts may be found on examination. These may account for the patient's symptoms, but one should always do a thorough digital and sigmoidoscopic examination to be sure that adeno-carcinoma is not also present. Likewise, a hemorrhoidectomy should be preceded by sigmoidoscopy, because hemorrhoids as well as other common rectal ailments are often present with cancer.

Squamous-cell carcinoma of the anal canal which involves the lower rectum can be differentiated by biopsy.

In chronic ulcerative colitis, tuberculous colitis or amebiasis, any of which involve the rectum, one will find an inflamed and ulcerated mucosa in the absence of a malignant growth. However, occasionally one finds the ulcerated mucosa studded with multiple polypoid growths which should be considered and observed as pre-cancerous lesions.

Single or multiple adenomatous polyps, sessile or pedunculated, regardless of their size, in the presence of an otherwise normal mucosa, should either be removed in their entirety or completely destroyed by fulguration. In either case the original sites of the polyps should be observed at weekly intervals for evidence of incomplete healing or recurrence which usually means malignancy.

Rectal stricture is inflammatory and may be due to gonorrhea, syphilis, or in the colored female, to lymphopathia venereum. It is usually found in young adults and involves the rectum within one or two inches of the anal canal. The constriction is rigid, more or less tubular and usually the surface is pitted by ulcerations. The Wassermann and Frei tests and study of smears will aid in the differentiation.

In suspected diverticulitis of the sigmoid causing obstruction, a malignant growth may not be visualized but must always be considered. X-ray study and even exploratory operation may be necessary to make a positive differentiation.

Occasionally diseases of the pelvic structures outside of the rectum produce confusing symptoms. In these conditions sigmoidoscopy generally shows a localized inflammatory involvement of the bowel wall with partial obstruction.

In functional disorders of the colon, examination commonly shows a normal mucosa with considerable mucus in the rectal cavity.

CONCLUSION

The great hazard in diagnosis of carcinoma of the rectum and rectosigmoid does not lie in the difficulty of its recognition when it is searched for, but it lies in the tendency to attribute the patient's symptoms to some minor rectal or abdominal ailment and, therefore, to neglect to examine the patient for the presence of a malignant growth.

The average duration of symptoms before diagnosis in the operable cases of cancer of the rectum has been about one year, and in the inoperable cases from fifteen to eighteen months. Malignant operable tumors of the average size of those operated in the past can scarcely be considered early. Physicians and surgeons must entertain a more widespread suspicion of malignancy in any and all departures from normal bowel habit and function. Digital and sigmoidoscopic examinations should be included in all thorough physical and periodic health examinations. Earlier diagnosis is imperative if further progress in the control of rectal and rectosigmoid cancer is to be achieved.

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RENAL INSUFFICIENCY

J. Murray Steele, New York (Journal A. M. A., June 13, 1936), reports a case in which the use of alkali through a span of many years for the relief of pain due to a duodenal ulcer was followed eventually by the passage of albumin, red blood cells and casts in the urine, and the appearance of severe renal insufficiency, as indicated by elevation of the urea nitrogen of the blood and marked decrease in the ability of the kidneys to excrete urea and to concentrate the urine. Recovery followed discontinuance of the use of alkalis. The usual neurologic manifestations of alkalosis, nausea, headache, nervousness and tetany were absent. Fatigue and nocturia were the only complaints.

Cancer Cell Antigens and Their Therapeutic Significance*

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CANCER is an antigenic disease. Antigens are irritating foreign proteins that arouse local, intermediate and systemic groups of responses in each of which fabrication of antibodies is the characteristic feature. Cancer antigens are the metabolic products of cancer cells, the cancer parasites. This concept,[1] based upon evidence I had derived from 35 years' study of the disease, chiefly in human beings, was presented before the American Surgical Association in 1934. It was rejected because unorthodox, because information provided by comparative pathology, normal and morbid physiology, is unrecognized and because many attempts of skilled investigators had failed to extract antigens from cancer, at least in a form that had not been modified considerably by the methods employed. Facilities provided by the Laboratory Department of Columbia Hospital, the assistance of H. A. Heise, M. D., Margaret Perry, M. A., Janet Hirshberg, B. A., Marion Tully, M. T., of that department, Dr. C. H. Bunting of the University of Wisconsin, and Gertrude Thomas, R. N., made it possible to carry on my methods that obtained antigens from human cancers and to preserve them immaterially altered structurally in a relatively innocuous liquid.

Intradermal injections of more or less robust, younger and older people, harboring and not harboring cancer, with 1/20 cc. of this fluid have provoked local and intermediate responses, and the nature of these responses established the specificity and potency of antigens obtained from divers cancers.**

Immunology, knowledge of the factors that impose susceptibility and confer insusceptibility to antigenic irritants, accordingly is fundamental in prevention, treatment and investigation of cancer and probably of all malignant neoplasms. Before presenting data obtained from our observation, pertinent aspects of cancer will be reviewed to facilitate recognition and evaluation of the local and intermediate responses to intradermal injections of cancer antigens.

Cancer, as old as man, affects susceptible individuals in all peoples and likely in all mammals. It remains the outstanding active pandemic disease.

Active sporadic, epidemic, endemic and pandemic diseases differ from passive diseases that result from malnutrition, degeneration, etc., in being provoked by antigens, the metabolic products of parasitic animal and vegetable cells and viruses. These diseases arise because susceptible hosts are unable to elaborate potent antibodies from antigens and to produce an adequate number of competent leucocytes by the local, intermediate and systemic responses to actions of their irritants. Potent antibodies fabricated and stored by insusceptible hosts combined with leucocytic actions, inactivate pathogenic amounts of antigens and also the parasites producing them.

Parasites of a sporadic or an epidemic malady, which is usually acute or subacute, contaminate divers proportions of people in a community wherein the disease is active. Only the susceptible persons who are contaminated become ill, and those who recover acquire insusceptibility which may be enduring. Those who are insusceptible and are contaminated tend to acquire immunity.

Parasites of endemic diseases, which tend to be rather chronic; e. g., tuberculosis, are so widespread and numerous that they repeatedly contaminate everyone continuing to live in a community in which the disease persists. Consequently, everyone sooner, per-

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* Presented at the 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, September, 1935.

[1] Annals of Surgery, October, 1934.

** Potent antigens have been obtained only from undegenerated and uncontaminated cancers secured soon after removal. We are indebted to those who have permitted a preoperative and postoperative study of their patients and allowed us to utilize the extirpated tumors.

haps before birth, or later, harbors continuously divers strains of more or less virulent bacilli. Domestic animals may be affected and such can be intermediate hosts quite as people are frequently carriers of parasites. A majority eventually inherit or acquire insusceptibility to endemic diseases else the affected areas were depopulated. Even the minority who inherit or acquire susceptibility enjoy as a rule a shorter or longer preliminary interval of insusceptibility. Because individuals usually have harbored parasites while still insusceptible, a disease commonly is inaugurated when a reduction in insusceptibility imposes susceptibility and, by exception, is provoked when there is an abrupt contamination with numerous highly virulent parasites. Recall that insusceptibility results primarily from a capacity to fabricate and to store potent antibodies and to produce adequate numbers of appropriate competent leucocytes. Susceptibility, inherent or acquired, is a deficit in this capacity. Hence a disease is spontaneous or induced, may begin in a fetus or in the aged, and the age of greatest incidence is the usual interval of preliminary insusceptibility.

In pandemic diseases the same conditions noted in endemic diseases affect everyone everywhere. Characteristic peculiarities are present in cancer. Instead of parasites, carcinogenic influences are so numerous and ubiquitous as to affect every man and likely all mammals.[1] Carcinogenic influences are parasitogenic, which cause transformation of quite normal epithelial into cancer cells and pathogenic, which render an individual susceptible to antigens produced by cancer cells. No one is insusceptible to parasitogenic influence, so that everyone comes sooner, perhaps before birth, or later, to harbor continuously divers strains of more or less malignant cancer cells. The majority inherit or acquire and retain insusceptibility, a capacity to fabricate and to store potent antibodies and to form appropriate leucocytes. The minority become susceptible, commonly after a preliminary interval of insusceptibility. They have inherited frailties of structure in cells that fabricate antibodies or form leucocytes or acquired such frailties through action of pathogenic influences; e. g., age, fatigue, illness, prolonged irritation, especially with exposure to lymphotoxic agencies, x-ray, coal tar, etc., etc. A disease may be (inherent) spontaneous or (acquired) induced, arise in a fetus or the aged, and the average age at onset is the usual interval of insusceptibility that is terminated by subcompetence chiefly of cells in blood and lymph-forming structures.

Such are significant facts presented by comparative pathology, and they are substantiated[2] by facts disclosed through normal and morbid physiology.

During intervals of health there are balances in, among and between the cellular and noncellular constituents of the blood which fluctuate with age, sex, divers activities and modes of living between upper and lower wholesome limits. It is seldom recognized that in healthful states subpathogenic amounts of antigens and protecting amounts of antibodies are usually, if not continuously, present in blood plasma. Balances in and among the cellular constituents are revealed by counting the numbers of each category of corpuscles, estimating the proportions of mature, immature and senile forms and calculating the ratios; e. g., monocyte-lymphocyte, monocyte-neutrophile, erythrocyte-hemoglobin, etc. Balances in the constituents of the plasma are revealed by proper volume of sugar, fats and proteins and electrolytes, among them by suitable ratios, for example, albumin-globulin, calcium-phosphorus, etc. Antigen-antibody balance is indicated but indirectly by sedimentation rates. If antigens are in excess, hydremia hastens sedimentation; if proportions are usual, so is sedimentation; if antibodies are in excess, sedimentation is retarded. Balances between cellular and noncellular constituents are disclosed by rates of sedimentation, wherein the concentration of plasma is the dominant factor unless there is polycythemia. Although wholesome limits are ill-defined, the balances are more favorable as they approach upper and less favorable as they approach lower limits as the limits are commonly interpreted.

Morbid physiology has demonstrated that protracted states of imbalance in, among and

[2] Yates. American Journal of the Medical Sciences. February, 1936.

between the cellular and noncellular constituents of the blood is incompatible with health and that the nature of the imbalance can be indicative of the pathogenic influence, be it antigenic or nonantigenic. It happens that the imbalances concomitant with pathogenic amounts of cancer antigen if considered with information obtainable from all other sources, history, examinations, etc., may, if there be no complicating influences as anemia, infections, x-ray irritation, etc., reveal diagnoses and prognoses.

DIAGNOSTIC AGENT

Diagnoses can include recognition of approaching susceptibility as well as grades of existing susceptibility and thus indicate modes of prevention and treatment adapted to an individual's needs.

Diagnostic and therapeutic utilization of antigens in parasitic diseases is readily summarized. In sporadic and epidemic diseases, Schick and Dick antigens are injected intradermally. A negative reaction occurs if potent diphtheria and scarlatina antibodies stored in the skin so inactivate the antigens as to prevent a recognizable inflammation. People having a negative reaction are in the main insusceptible and not infrequently immune. If potent antibodies are not stored in the skin the injected antigens are incompletely if at all in activated and an inflammatory response of a definite size develops one-half to three days later. People showing such positive responses to injected antigens are in the main susceptible, but may be induced to acquire at least a temporary insusceptibility if antigenic injections are suitably repeated.

Whether the local responses be negative or positive it is quite certain that, were appropriate blood studies made, intermediate responses; namely, alterations in the balances in the blood would be recognized. Moreover, the alterations would be favorable or unfavorable, and unfavorable alterations indicate need for careful active immunization with toxin-antitoxin or Dick antigen injections.

It is significant that when the Schick and Dick antigens produce a positive response in the skin, it is delayed and correspondingly subacute in character and that when a negative response results, although there has been an inactivating antigen-antibody reaction, the typical acute response, manifest in a rapid edematous cutaneous infiltration, is notably absent. Presumably this indicates the Schick and Dick antigens are so modified that an edema provoking constituent has been removed or inactivated.

Tuberculin is a classic example of a modified antigen employed as a diagnostic and therapeutic agent in an endemic disease. Intradermal injections cause a positive reaction only when antibodies are stored in the skin. It appears two-thirds to seven days later and is usually subacute. By exception, there may be a delayed edematous infiltration. A negative reaction merely indicates that an individual has not yet harbored virulent tubercle bacilli, fabricated and stored antibodies or is in extremis, having forfeited capacity to fabricate and to store them. When complete blood examinations precede and follow injections of tuberculin, favorable or unfavorable intermediate responses are discovered and if interpreted with the nature of the local responses, the patient's condition, etc., are informative. Thus existing degrees of insusceptibility can be estimated and appropriate modes of therapy recognized. Moreover, if, during the course of a disease, blood examinations are repeated, reduction or increment in grades of susceptibility will indicate whether treatment is or is not efficacious. By the same token, if blood examinations be made while therapeutic injections of tuberculin are being given, beneficial or detrimental consequences are manifest.

In order to save space, you are asked to accept our statement that in so far as has been feasible, observations of the responses to injections of cancer antigens have been controlled by noting responses to intradermal injections of 1/20 cc. of similar and dissimilar liquids including tuberculin, histamine and distilled water. We will state as concisely as possible our interpretations of local and intermediate responses, the specificity of antigens and of the active immunizing potentiality of repeated injections. Microscopic examinations made by Dr. Bunting.

LOCAL RESPONSES

Negative. The original welt ½ cm. in diameter is not prone to enlarge, disappears less rapidly than one made by injecting salt solution which in an exceptional individual may slightly enlarge. No intradermal injection fails to provoke limited inflammation, the nature of which cannot be estimated accurately by microscopic examination because introduction of a needle causes some bleeding. A halo of erythema may develop but is inconsequential.

Positive. Enlargement of the welt begins quickly, may double or triple its diameter within five minutes. One or more pseudopods may appear, more commonly if material enlargement is rapid. Histamine is the only control liquid injected that produced larger, more rapid enlargements. Erythema seemed too uncertain to be considered as an index of reaction. Margins of a weal are usually abrupt and the surface of the plateau is obviously edematous.

As the weal begins to disappear, the margins become less abrupt and redden as the edema is removed. It may have disappeared in one-half hour or persist for two or three days as an area of red induration. Sometimes a deeper nodule is palpable after three or more days.

A sharp positive response in addition to edema shows after one-half hour dense collars of leucocytes about vessels whose walls are being penetrated and a perivascular deposition of fibrin. After 72 hours, acute aspects have disappeared, nuclear fragments are embedded in the fibrin. (Colored moving picture records of gross and microscopic local responses and of intermediate responses were shown at end of presentation).

Negative responses have occurred in younger people who have not harbored cancer cells and in older people who have not harbored more malignant cancer cells, probably in some who have fabricated and stored potent antibodies from antigens produced by more malignant cancer cells, in one old man in extremis with widely disseminated cancer, in persons harboring nonmetastasizing epitheliomas, including a woman who had had a rodent ulcer for 25 years.

Positive local responses rated plus-minus, plus, plus plus, and plus plus plus, have developed in older robust people supposed to be harboring more malignant cancer cells, in people known to harbor cancer, in people apparently well one to seven years after extirpation of cancer and in those more or less incapacitated by active or inactive cancer; also in one young woman dying from endothelioma and one older woman who died later from recrudescence of a sarcoma recently removed.

Intermediate responses. Blood examinations are made before and forty-eight hours after injections as experience has proved this interval to give more dependable information. Eosinophilia immediately or even later after injection is unusual. Reduction in neutrophilia if present, reduction in monocyte-lymphocyte ratio toward, to or below 0.33, and a slowing of sedimentation rate are regarded as indicating favorable response; contrary alterations as indicating an unfavorable response. Although it is the combination of all alterations rather than any one that is informative, alteration of sedimentation is the most significant single feature.

Following Dr. Bunting's lead and with his collaboration, we began twenty years ago to study blood of cancer patients in coordination with similar investigations of blood of those suffering from tuberculosis, Hodgkin's[3] and correlated diseases. These efforts were to detect criteria indicative of impending and early susceptibility and of fluctuations in susceptibility during the course of a disease. Considered in reverse order, it developed that in all of these diseases favorable and unfavorable fluctuations in susceptibility could be detected and this established the efficacy or inefficacy of modes of treatment *while* they were being employed. Recovery was associated with restoration of balances in the constituents of the blood and a return of imbalance accompanied a return of susceptibility and could betoken a recrudescence before it was otherwise recognizable. Recognition of early susceptibility to tuberculosis and to

[3] Bunting. Johns Hopkins Hospital Bull. XXII, 1911, 369.

Hodgkin's disease et al was possible and more dependable than recognition of early susceptibility to cancer. Experiences of attempts to recognize impending susceptibility to these maladies were quite similar except that in tuberculosis and cancer family history could be informative.

Since unmodified cancer antigens have been available, the cancer problems have been somewhat simplified and we are learning how to learn to solve them. Intradermal injections of 1/20 cc. of fluid containing antigens adds a larger volume of antigens more rapidly than they are produced in early phases of a disease. As these antigens are little altered from their native state, the edema-producing element is active. Immediate positive local responses prove the presence of antibodies stored in the skin. Additional delayed local responses suggest the antigen injected was not entirely inactivated by the immediate antigen-antibody reaction productive of edema and the residue provoked a later indurated response apparently typical of the reactions to modified antigens. Negative local responses are explicable in three ways; there are no potent antibodies stored in the skins, the antigens injected are nonspecific for stored antibodies or the antibodies stored are potent enough to inactivate antigens before a recognizable antigen-antibody reaction occurs. Intermediate responses are more informative than the local responses. Unless the injected antigen be inactivated so promptly as to prevent a local reaction, some of it inevitably enters lymph and blood, and we presume in sufficient amount to provoke recognizable intermediate responses unless it again be too promptly inactivated. Our observations of favorable and unfavorable responses manifest in the blood are the bases for these statements and hypotheses.

Potency of antigens varies with the cancers producing them and with the methods employed. Potency tends to diminish after long preservation. Thus far, mammary cancers have been the source of antigens.

Potent mammary cancer antigens have manifested specificity for antibodies produced by other mammary cancers, cancers of stomach, colon and adenocarcinomas of the fundus of the uterus. These antigens have produced no local reactions in people harboring nonmetastasizing epitheliomas, presumably because the antigens produced by relatively inactivated cancer cells originating in epithelioma of low differentiation are insufficiently irritating to cause fabrication and storage of potent antibodies. One positive local response occurred in a person harboring metastasis from a cervical epithelioma and was perhaps attributable to antibodies fabricated from more abundant and likely more potent antigens. Individuals from whom mammary cancers, which provided antigens, were extirpated, seemed to respond locally and more actively to injections of their own than to antigens of others.

Utilization of repeated injections of antigens for active immunization have been restricted because unfavorable as well as favorable intermediate responses made caution imperative. Two pertinent observations have been made. Injections of liquids possibly containing antigens and of control liquids begun into my skin and were repeated. At first the local response was plus plus with formation of pseudopods. Later, after an unknown number of injections, the local response was negative and disappeared even more rapidly than a welt made at the same time by 1/20 cc. of salt solution. One patient who had a mammary cancer removed has received repeated injections of her own antigens and the antigens of others with benefit, as determined by her blood and her general condition. She had active plus plus plus local responses to all antigens, but now has a negative local response to her own antigen and a less active response to another.

SUMMARY

Antigens have been obtained in an immaterially modified form from human mammary cancers.

Intradermal injections of cancer antigens arouse positive and negative local and intermediate responses in susceptible and insusceptible people in accordance with existing knowledge of the behavior of less potent bac-

terial antigens that would provoke active but chronic pandemic diseases.

Interpretation of local and intermediate positive and negative responses to intradermal injections of cancer antigens are helpful in recognizing impending susceptibility, early susceptibility and fluctuating susceptibility to cancer and in selecting modes of prevention and treatment suited to an individual's needs.

CONCLUSION

Cancer is an antigenic disease.

Immunology disclosed methods the more effectively to prevent, to treat and to study cancer.

The Surgical Treatment of Carcinoma of the Rectum*

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THE surgical treatment of carcinoma of the rectum is in general a reasonably bright chapter in carcinoma therapy because of the relatively slow growth of the tumor, late metastases and early symptoms, coupled with the availability of radical surgical procedures carrying reasonably low mortalities with a chance of 35% of five-year cure. The gloomiest side of the picture concerns the late diagnosis of the condition, which is either due to failure of the patient to consult his doctor when symptoms of blood in the stool or change of bowel habits are first noticed, or to failure of the doctor to make a sufficiently thorough examination to make a diagnosis. Certainly, over half of the diagnoses could be made by digital rectal examination alone and the remaining half by the use of the proctoscope and x-ray. As indication of the late diagnosis of rectal carcinoma, it should be widely appreciated by doctors that only 50–60% of cancer of the rectum seen in private practice are in the operable stage while less than 30% are operable in our large charity hospitals.

The results of a careful examination indicate to a large extent whether the lesion is operable and, to a great degree, determines in the surgeon's mind what kind of an operation should be done, which offers the greatest degree of radicability compatible with the patient's survival. In general, it should be accepted that in practically all cases where the lesion is operable it should be removed even though the risk be high, for, without removal, certain death results.

The choice of anaesthetic agents varies considerably with the experience of the individual surgeon. Because of its wide limits of safety and reliability we use a combination of novocain infiltration of the abdominal wall and ethylene ether anaesthesia. For exploration of the abdomen and intra-abdominal mobilization of the rectum ethylene ether is used, whereas the posterior resection of the rectum can almost always be done with ethylene alone. Many use lumbar anaesthesia and others use lumbar, sacral and gas (Miles). The safety factor in anaesthesia must always be carefully considered. Some fixation of the growth is caused by penetration of the bowel wall and attachment of the growth to the fascia propria surrounding the bowel. This does not render the growth absolutely fixed and does not make it inoperable. The circumferential involvement of the bowel wall is important to note, in that it usually requires about a year for the growth to entirely encircle the bowel wall in the ampulla. In examining suspicious lesions above the reach of the finger through the proctoscope, the induration of the tumor, when pushed upon by the end of the proctoscope, and the induration and friability of the tumor when pieces are taken for biopsy, are important facts in making the diagnosis of malignancy. In high lying tumors, the relation of the tumor to surrounding parts and especially its attachment to the posterior wall of the bladder can best be ascertained by laparotomy.

* Presented before 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, September, 1935.

Exploratory laparotomy is also essential to determine involvement of the liver and second metastases, to examine the colon for a second carcinoma or large polyps and to determine the involvement of glands along the superior hemorrhoidal vessels or even higher along the aorta. If the growth is intraperitoneal the peritoneum adjacent should be carefully searched for plaques of carcinoma. A single, small nodule in the liver should not decide the surgeon to abandon a radical operation, as a small adenoma or a small cyst could be responsible for the nodule. Multiple liver nodules, peritoneal plaques, firm adherence of the growth to the base of the bladder or sacrum, large hard glands along the aorta render the growth inoperable and it is rarely wise to do a palliative removal of the growth. This question can only be decided on an individual basis.

Before considering what operative procedure to carry out at the time of the exploratory laparotomy, the preparation of the patient will be considered, as careful preoperative preparation is especially important in operation for carcinoma of the rectum or colon.

In selection of the operation in operable growths of the rectum, one must be prepared to carry out several plans of action, depending on the location of the growth, its spread from its primary site, and the ability of the patient to withstand the surgical procedure determined on.

In cases with acute or partial obstruction of the bowel, no radical procedure should be carried out before decompressing the bowel. This is best done by putting a catheter in the caecum where any type of an abdomino-perineal operation is subsequently to be considered or by a transverse colon colostomy.

EPITHELIOMA OF ANUS

This lesion is often diagnosed early because of the pain associated with ulceration of the skin. The lymphatic drainage is across the ischiorectal fossae to the inguinal glands unless the mucocutaneous line of the rectum has been crossed by the growth, in which event the lymphatic drainage is also upward along the superior hemorrhoidal and lateral along the middle hemorrhoidal vessels.

In the event that the lesion is small and localized on the skin, it can locally be removed widely into healthy tissue by cautery and at the same time the inguinal glands on both sides should be removed. If the epithelioma is near or has actually involved the mucocutaneous line, a colostomy associated with bilateral removal of the inguinal glands should be done at the first operation and ten days later the rectum should be removed from below, after opening the peritoneum and ligation of the superior hemorrhoidal artery just below the promontory of the sacrum.

The usual site of carcinoma of the rectum is in the ampulla just below or just above the peritoneal reflection of the cul-de-sac of Douglas. When the growth is above the peritoneal reflection, or at the rectosigmoid, or the growth in the ampulla occurs in patients who are not fat and are in good general health, an abdomino-perineal operation in one or two stages is the operation of choice. The reason for this lies in the fact that the spread of carcinoma in the rectum is mainly upward along the superior hemorrhoidal vessels and to some degree along the middle hemorrhoidal vessels. In high-lying tumors especially, it is exceedingly important to ligate the superior hemorrhoidal vessels as high as possible to include all possible lymphatic glands. While cells from the carcinoma rarely involve the bowel itself for more than an inch above and below the lesion, many believe that wide excision of the bowel may also remove polyps which are potentially malignant. This argument is of lesser weight.

The one-stage abdomino-perineal operation is the ideal one because it answers the principles of wide excision of the tissue bearing the carcinoma, as well as the lymphatic channels draining the lesion. The operation combines in a single procedure, exploration of the abdomen, wide removal of the growth with the formation of an end or terminal colostomy in contrast to a double barrel colostomy with a blind end or an uncontrollable sacral anus. It also has a shorter convalescence than the two-stage procedure. Its main disadvantage is its relative limited applicability due to high mortality in poorly

selected patients. Schmieden did 41 abdomino-perineal operations during a period when he did 37 sacral operations. The operative mortality of the operation in the best hands is around 10%. Miles reported a series with 5% mortality.

The principal steps in the operation are:

1. Laparotomy with division of lateral, medial and bladder peritoneal attachments of the rectum.
2. Ligation of the superior hemorrhoidal vessels at the level of the promontory just below the sigmoid branch.
3. Rectum lifted forward by hand in hollow of the sacrum, separated from the bladder down to seminal vesicles and triangular lateral ligaments containing middle hemorrhoidal arteries ligated.
4. Bowel ligated and divided 3–5 inches above rectosigmoid and each end covered with rubber tissue.
5. Distal segment pushed downward into hollow of sacrum.
6. Careful covering of pelvic floor with peritoneum, great care being taken not to suture it under tension.
7. Abdominal wall closed around proximal end of colon. Abdominal wall protected by iodoform gauze and zinc oxide ointment.
8. Patient put on abdomen in reverse Trendelenburg position.
9. Anus closed with a purse string. Incision from coccyx encircling anus; coccyx removed; fascia propria divided transversely, giving an opening into hollow of sacrum. Mobilized bowel delivered and remaining rectum and levatores, anus and sphincters removed from above downward; wound lightly packed.
10. Transfusion of 500 c.c. blood.

The complications which lead to higher mortality in this procedure are peritonitis, ileus from inclusion of a loop of bowel in a break in the pelvic peritoneal floor, operative shock, and more rarely hemorrhage. Postoperative pneumonia or embolism are not as common complications as would be expected. Difficulty with urinary retention and cystitis may be very troublesome and add a certain mortality to the procedure. Pelvic cellulitis is not often a serious factor though infection of the abdominal wall or peritoneum from death of the bowel forming the colostomy occasionally occurs. A complication not often mentioned, which we believe a relatively important one, is infection from diverticulitis or from a ruptured diverticulum of the sigmoid. It is relatively common to find the sigmoid plastered to the lateral peritoneum by reason of long standing diverticulitis. Freeing the bowel may actually open diverticula or stir up a latent infection. We have actually seen perforation of diverticula in the abdominal wall adjacent to the end colostomy in several cases.

TWO-STAGE OPERATION

The two-stage abdomino-perineal operation is reserved for those patients whose general condition is not ideal or who are aged, fat and especially who have tumors above the peritoneal reflection. The mortality of this operation in a less favorable group is about the same or slightly lower than that accompanying the one-stage abdomino-perineal operation. Rankin reports 8.8% mortality for this procedure in 89 cases. Many variations of procedure are offered for selection but the following are highly regarded:

(1) Jones' procedure:

At exploration the superior hemorrhoidal vessels are ligated and divided close to the promontory of the sacrum. The bowel is mobilized as in the one-stage operation, taking care not to injure the vascular arcades which supply blood to the bowel from the sigmoid branches anastomosing with the middle hemorrhoidal artery. Without division of the bowel, the mobilized rectum with the growth is pushed into the hollow of the sacrum and the pelvic peritoneal floor sutured high up on the bowel. A double barreled colostomy is made through a left muscle splitting incision. At a second stage the rectum is removed from below. The disadvantages are the danger of poor blood supply of the rectum, after division of the superior hemorrhoidal vessels and mobilization of the

rectum, and the blind strip of bowel left after removal of the rectum.

(2) Rankin suggests at the exploratory operation, division of the sigmoid low down with as little ligation of the vessels in the arcade as possible. The proximal end is used as an end colostomy and the distal end is closed in layers and dropped back into the abdomen. At a second stage he mobilized the bowel from behind, after removal of the coccyx, up to the peritoneum. The bowel is covered with a rubber glove. The patient is then put on his back and the abdominal removal of the bowel is carried out and the pelvic peritoneal floor repaired. The disadvantage of this operation is danger of leakage from the blind intra-peritoneal stump in fat subjects where careful approximation of the bowel is difficult, and second, the rather formidable second stage which may be complicated seriously by any break in technique occurring in freeing the bowel from below, and lastly, the risk and difficulty in keeping the distal segment clean between the first and second stages.

(3) Lahey proposed, at the first operation, to divide the sigmoid above the growth and to utilize the proximal end as an end-colostomy, and to suture the distal end into the lower abdominal incision, where it could be used as an opening to irrigate the lower bowel containing the tumor between the stages. At the second operation the opening of the distal loop is closed and a typical abdomino-perineal operation carried out. The disadvantages of the operation concern themselves with the possibility of a short mesentery and a thick abdominal wall in fat subjects, making it difficult to bring the distal loop up to the abdominal wall and the formidable second stage.

(4) Purely abdominal operations for carcinoma of the rectum can be done in a few cases. In selected cases with small growths at the rectosigmoid junction David has suggested and carried out an obstruction resection of this part of the bowel. The operation is based on the premise that the spread of carcinoma in this region is usually upward and that after thoroughly mobilizing the rectum laterally and in the hollow of the sacrum without division of the superior hemorrhoidal vessels, the region of the rectosigmoid may be lifted out of the abdominal cavity and removed by a modified Mikulicz operation. Subsequently at the second stage the continuity of the bowel is reestablished. The availability of this operation is limited but David has carried it out successfully in ten patients.

The removal of the rectosigmoid junction with the tumor and closure of the distal rectal stump and end colostomy with the proximal bowel has been done. A resection of the rectosigmoid region with an end to end anastomosis has also an occasional advocate.

In contrast to the abdomino-perineal operation in one or two stages is the operation popularized by Mummary, consisting of an exploratory abdominal operation terminating with a left inguinal colostomy followed in 10 days or two weeks by removal of the rectum from below. This is a somewhat less radical operation than the abdomino-perineal procedures because the superior hemorrhoidal vessels are not usually ligated at the promontory of the sacrum but considerably below it and therefore the possibility of local recurrence in the glands is greater. This operation carries a much lower mortality (about 5%), and is best suited to tumors lying below the peritoneal reflection and in patients whose general condition precludes the safe performance of the more radical operation.

In 1931 Goetze of Erlangen suggested material enlargement of the scope of the sacral operation which he uses without abdominal exploration and with the establishment of a sacral anus. A number of pertinent suggestions are made in his operation, which are available for use in a posterior resection after preliminary exploration and colostomy. After removal of the coccyx and the terminal two pieces of the sacrum, Goetze dissects the pelvic fascia containing the mid-sacral artery forward from the sacrum as high as the promontory and then opens the peritoneum on both sides of the rectum before the levator muscles are divided. After opening the peritoneum the rectum is mobilized by dividing the peritoneum upward and the superior hemorrhoidal artery is ligated at the promontory of the sacrum *above* the last sigmoid

branch so that the sigmoid may be mobilized and brought down for a sacral anus. The principles involved in ligation of the superior hemorrhoidal vessels early in the operation, and early opening of the peritoneum and conducting the operation from above downward, are good, in that the blood supply is controlled early in the operation, and that manipulation of the tumor before division of the blood supply is avoided and perhaps blood stream metastasis are prevented. Goetze maintains that his operation is as radical as the abdomino-perineal procedure, and allows saving the sphincters in certain instances with re-establishment of continuity of the bowel by the "pull-through" method of Hochenegg. At this writing this procedure has found little support in America.

POSTOPERATIVE CARE

The after-care of patients who have had a radical operation for removal of a carcinoma of the rectum plays an important role in the reduction of mortality.

In addition to the transfusion of 500 c.c. of blood immediately following operation, which not only replaces blood lost at the operation and blood serum loss by oozing from the posterior wound after operation, but also maintains blood pressure, 3000–4000 c.c. of salt solution is given subcutaneously or intravenously during the first 24 hours after operation. No fluids or food are given by mouth until vomiting ceases. A Levine tube is placed in the stomach and continuous aspiration carried on if vomiting is at all persistent. As soon as vomiting ceases fluids and liquid food are started in small quantities by mouth and by the end of the third day fluid intake by mouth is usually sufficient and easily digested food in more substantial amounts is being taken. Subcutaneous salt solution and 10% glucose solution is used freely to keep the fluid balance normal. Morphine is used in moderate amounts to keep the patient comfortable and afford a proper amount of sleep.

One of the most important and, at times, serious tasks is the care of the urinary bladder. We have never used an indwelling catheter in the bladder during the operation in spite of its general advocacy because it is not necessary as a guide during operation and its continued use after operation almost invariably leads to cystitis. Following radical removal of the rectum without the use of an indwelling catheter at least 10% of the patients will urinate spontaneously and although a large per cent will require catheterization every eight hours, they soon begin to urinate spontaneously and a serious cystitis is avoided. A smaller group will require an indwelling catheter because of the development of cystitis and occasionally in older male patients supraupubic cystotomy or electric resection of the prostate will be necessary before urination again becomes normal. Where one succeeds in establishing urination after occasional catheterization, it is important to catheterize the patient for residual urine after spontaneous urination begins.

The posterior dressings are usually removed by the fifth to ninth day postoperatively, after which time the posterior wound is irrigated with normal salt solution three times in twenty-four hours. The patients are usually out of bed on their feet by the beginning of the third week postoperatively.

The colostomy is opened the day after operation and a catheter inserted into the bowel. Oil and water are injected in small amounts to encourage the passage of gas. After the abdominal wound is healed the colostomy is irrigated every morning with one and one-half pints of water. With restriction of laxative food from the diet and morning irrigation of the colostomy, most patients go through until the next day without further bowel movement.

The use of a simple colostomy cup such as the Grenfell cup is of comfort to the patient when away from home.

PROGNOSIS

The life expectancy of patients having radical removal of the rectum for carcinoma depends largely on whether spread of the local lesion into the adjacent glands has taken place. If glandular metastasis has occurred the type of operation performed plays a considerable role in life expectancy for while the most radical operation carries an increased operative mortality there is a

more favorable prognosis in the patients who survive.

In numerous studies of operative specimens, the tumor has been found to have spread to the lymphatics in 35 to 45% of the cases.

Rankin reports on five-year cures in 300 cases subjected to radical operation for carcinoma of the rectum. Where glands were involved at the time of operation the five-year survivals were 20% contrasted to 48% of five-year cures after the operation where glands were not involved.

Pregnancy and youth are extremely unfavorable factors in that the spread and rapidity of growth of the lesion is greater.

The future of the patient with a carcinoma of the rectum may be generally vizualized at the present time as follows: Of every hundred patients presenting themselves for examination only 50 can be radically operated upon. Of these 50 operable patients, 40% or 20 will have glandular metastases. An average operable mortality of 10% leaves 45 patients surviving the operation. Of the 20 patients having glandular metastases, 18 will survive the operation and 4, or 20%, will live for five years or more. Of the 30 patients having no glandular involvement 27 will survive the operation and 14 or 50% will live for 5 years or more. This results in a five-year cure of 18 patients or 36% of the total number suited to radical surgery.

While this is not the most cheering picture, it offers more encouragement than any other method of treatment and means that one in three patients will survive operation for five years or more. With earlier diagnosis of the lesion a corresponding increase of favorable results will follow.

Inoperable carcinoma of the rectum is a bête noire to the patient and his surgeon, as everyone knows who has stood by and rendered what help and comfort was possible in most trying conditions. The sad termination of the disease has led some surgeons to carry out radical removal of the rectum where this could be done even though glands beyond the field of operation or early metastases of the liver were left behind. The wisdom of this procedure is difficult to decide as the discomfort and convalescence from a radical operation is a factor to consider. Where multiple liver metastases are present the patient usually lives about six to ten months and dies a relatively painless death from weakness and anaemia. Where the lesion is firmly attached to the surrounding structures, severe pain often supervenes and an increasing amount of morphine is not only definitely indicated for the relief of pain but is a humanitarian procedure. In the terminal stages of the disease the patient should be well narcotized.

As a palliative procedure, a colostomy is useful in relieving the element of faecal contamination of the carcinomatous ulcer with its consequent infection; to relieve in a greater or less degree the constant distressing tenesmus and of most importance to relieve or prevent obstruction of the bowel by the growth. Where liver metastases are large and the degree of bowel obstruction is slight, the colostomy may be omitted.

There is no question that the use of radium placed on and in or around the growth in the form of needles or radon seeds will lead to regressive changes in the growth of the tumor and will occasionally materially decrease the size of the tumor and sometimes will practically eliminate the discharge of blood and mucus from the tumor. In most cases, however, the tumor is radio-resistant, and the radium application results in a severe reaction in the tumor and its environs that causes extreme discomfort to the patient. Usually where the most destruction of the tumor results from radium, the greater is the patient's discomfort from radium reaction. The use of radium packs over the sacrum and lower abdomen has influenced but little the growth of the tumor in the cases we have seen.

Where radium treatment is used in operable carcinomas of the rectum, and the tumor has been largely or entirely destroyed, we have radically removed the rectum in six patients suffering from radium burns, three of whom had definite evidence of carcinoma under the radium burn and two others had degenerated cells beneath the necrotic ulcer which were highly suspicious of carcinoma.

Fulguration and coagulation of carcinoma of the rectum has been done, but we can see no place for such a procedure in either operable or inoperable lesions.

In general, young patients and patients under 50 years of age, in good general health, not too fat, and especially women, should be given the benefit of the most radical surgery. Pregnant women, fat patients, or patients suffering with diabetes, hypertension, thyroid disease, nephritis, enlarged prostates, fibroids of the uterus, diverticulitis or marked second anaemia require careful selection of operative procedures which can be done without too high a mortality. These factors are to a great degree personal to the surgeon, in that each surgeon must have a very good idea of what he himself can do successfully. The cardiovascular efficiency of the patient is important to have well in mind in selecting operative procedures. Most of those patients stand the operative procedures better than the convalescence. The presence of liver, bone, or lung metastases should be as carefully excluded as possible by examination and x-ray before operation.

Examination of the growth itself determines to a large extent the local operability of the lesion and to some degree the type of operation to be done. About 2% of the rectal carcinoma involves the skin of the anus, the remainder occurring from the rectosigmoid junction downward. More than 50% of these may be felt by digital examination, the higher ones being more easily palpable when the patient stands in a slightly bent-forward position and strains. The average examining finger in the rectum may touch as high as the seminal vesicles in the male or posterior fornix in the female, which is about the level of the lowest portion of the peritoneum of the pouch of Douglas. When examining the growth, not only should the characteristic crater with raised hard and friable edges be palpated, but the location and size of the growth, its involvement of the bowel wall, and, of greatest importance, its fixation to the prostate, sacrum, vagina or its penetration of the bowel with a mass outside of the bowel wall, should be most carefully determined.

It is advisable to have the patient in the hospital three to five days before the operation so that not only his reserves may be properly estimated by cardiograph, and blood chemistry, where necessary, but also so that his bowel may be properly emptied before operation. A mild saline cathartic is given four days before operation and each succeeding day an enema of a quart of water is given night and morning up to the evening before the operation. It is extremely important to have an empty colon, and, above all, absence of liquid faeces on the day of operation. This can easily be missed by too strenuous use of cathartics. A high calory non-residue diet is given and especial attention is given to a large fluid and high carbohydrate intake. Intraperitoneal vaccination with streptococci and colon bacilli or amniotic fluid is used by many. We still consider it in the experimental stage and so far have not used it. Many of the patients in whom it is used have considerable abdominal pain and some temperature which is contrary to our feeling, that a patient awaiting a major operation should be kept on his feet and in as good general health as possible. A mild hypnotic is used the evening before the operation.

NEW YORK ACADEMY FORTNIGHT

For the Annual Graduate Fortnight of the New York Academy of Medicine a subject of outstanding importance in the practice of medicine and surgery is selected and is presented from as many angles as possible. An attempt is made to offer to the profession a grasp of the advances in medicine so that the busy practitioner may be informed as to the last word on a given topic.

The Ninth Annual Graduate Fortnight will be held October 19 to 31 and will be devoted to a consideration of Trauma; Occupational Diseases and Hazards.

Twenty-three important hospitals of the City will present coordinated afternoon clinics and clinical demonstrations. At the evening meetings prominent clinicians from various parts of the country who are recognized authorities in their special lines of work will discuss various aspects of the general subject.

A comprehensive exhibit of books, pathological and research material, apparatus for resuscitation and other first-aid appliances will be assembled. Demonstrations will be held at regular intervals.

Cancer Reports During 1935; Summary of Reports Received by Wisconsin State Board of Health

By G. W. HENIKA, M. D.
Deputy State Health Officer, Madison

CANCER in Wisconsin is a reportable disease as result of a bill passed in the legislature sponsored by The State Medical Society of Wisconsin and supported by the State Board of Health. There follows a summary of 1,285 reports received during 1935. Of these, 597 cases were reported in males and 688 in females.

PRIMARY SITE OR ORGAN

Eye	2 cases
Nose	33 "
Skin	109 "
Brain	4 "
Lungs	12 "
Male genito-urinary organs	50 "
Prostate	79 "
Other parts of body	97 "
No location given of site of cancer	6 "

BUCCAL CAVITY

Lip	47 cases
Mouth	26 "
Tongue	14 "
Larynx	9 "
Pharynx	3 "
Other cancer of buccal cavity	8 "

DIGESTIVE TRACT

Esophagus	22 cases
Stomach	128 "
Small intestines	9 "
Large intestines	58 "
Rectum	110 "
Liver and gallbladder	18 "
Pancreas	10 "

FEMALE, MARRIED, WIDOWED OR DIVORCED

Cervix	88 cases
Uterus	45 "
Other reproductive organs and bladder	47 "
Breast	222 "
Male Breast	1 "

FEMALE, SINGLE

Cervix	6 cases
Uterus	4 "
Other reproductive organs and bladder	4 "
Breast	20 "

DIAGNOSIS

Clinical	480 cases
Microscopical	648 "
Autopsy	4 "
Method not given	153 "

METHOD OF TREATMENT

Palliative	78 cases
Surgical	642 "
Radium	187 "
X-ray	263 "
Cautery, fulguration	38 "
Method of treatment not given	70 "
Cases refusing surgical relief	19 "
Cases showing metastasis	452 "
Cases showing recurrence	39 "
Inoperable cases	75 "

Many cases are credited with two types of treatment.

TIME BETWEEN FIRST SUSPICION OF CANCER BY PATIENT AND VISIT TO PHYSICIAN

Unsuspected	182 cases
Under 15 days	112 "
One month	101 "
Two months	98 "
Four "	117 "
Six "	120 "
Eight "	48 "
One year	146 "
Two years	90 cases
Three "	37 "
Four "	18 "
Five "	24 "
Ten "	14 "
Twenty years	6 "
Time not stated	172 "

TIME BETWEEN FIRST DIAGNOSIS AND STARTING TREATMENT

Under 15 days	1,070 cases
One month	35 "
Two months	9 "
Four "	9 "
Six "	11 "
One year	13 cases
Two years	1 "
Three "	3 "
Four "	1 "
Time not stated	133 "

CONCLUSIONS

After a careful study of the 1935 cancer reports one must arrive at the same conclusions expressed following receipt of the 1934 report cards:

1. Many physicians are not reporting their cancer cases as the law provides.

2. Many of the reports received are so poorly filled out that they are of little use in making a study of cancer.

(Note: 63 cards were not signed by the physician reporting the case.

172 reports did not state the time between the discovery of the condition by the patient and visit to the physician.

133 reports failed to state the time between the first diagnosis and beginning of treatment.

153 failed to give method of diagnosis and 7 did not give the name of patient.)

3. The bearing of children apparently is an important cause for the frequency of cancer in women, and the delay in securing an early diagnosis and early medical care in a large number of cases indicates the necessity for continuing educational work in this field.

The Factors Which Influence the Curability of Mammary Cancer*

By U. V. PORTMANN, M. D.
Cleveland Clinic, Cleveland, Ohio

THE factors which influence the curability of carcinoma of the breast are: (1) the extent of the malignant process, (2) the inherent degree of malignancy, and (3) the methods employed for treating it.

In order to explain the importance of each of these factors, it will be necessary to review some statistical records which have been reported in the literature concerning the results of treatment. I shall discuss also two series of cases from our own records at the Cleveland Clinic. In each of these series, every operation was performed for carcinoma of the breast by Dr. George Crile and microscopic examination verified the diagnosis. The first series consisted of 83 cases in which the only treatment was operation. In the second series of 99 cases, operation was performed and I administered postoperative roentgen therapy myself. All the patients in the latter group were seen between 1922 and 1930 so that every case was treated five or more years ago. Other cases which have been excluded from this study are those in which operation was performed by Dr. Crile during this time but the patients were lost immediately following treatment; those cases treated by roentgen therapy elsewhere; those treated only for recurrence or metastases; those in which the first course of therapy was not completed; and those in which operation was not performed but irradiation was administered. The patients who have been traced for any period of time and those known to have lived, or those known to have died from *any* cause are included and credit is given for their period of survival. Those cases in which operation only was performed were selected by Dr. Allen Graham, our pathologist at the Cleveland Clinic. I selected the series having postoperative roentgen therapy and included all cases having one or more complete courses of treatment postoperatively. Each series was classified by Dr. Graham and me on the basis of the extent of the disease, somewhat on the basis of Steinthal's groups.

Accordingly, the cases arranged themselves in the following order: (Table I)

Group I cases are those in which early growths occurred with no axillary metastases. This group includes 22.4 per cent of all cases, 22.9 per cent of those having operation only and 22.2 per cent of those having postoperative roentgen therapy.

Group II cases are those in which the growths progressed and in which there occurred minimum skin involvement with moderate degree of axillary extension. This group comprises 32.2 per cent of all cases, 27.7 per cent of those having operation only and 36.4 per cent of those having postoperative roentgen therapy.

Group III cases are those in which there are advanced growths with more extensive axillary involvement but no known clinical evidence of distant metastases at the time of

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TABLE I

CASES OF CARCINOMA OF THE BREAST GROUPED ACCORDING TO THE EXTENT OF DISEASE

Crile and Portmann

		Group I	Group II	Group III
(A) Operation only (83 cases)	No. Cases	19	23	41
	% of Total	22.9	27.7	49.4
(B) Operation plus x-ray (99 cases)	No. Cases	22	36	41
	% of Total	22.2	36.4	41.4
Total (A) + (B) Combined (182 cases)	No. Cases	41	59	82
	% of Total	22.4	32.2	45.4

operation, include 45.4 per cent of all cases, 49.4 per cent of those having operation only, and 41.4 per cent of those having postoperative roentgen therapy.

I purposely arranged to have Dr. Graham select as nearly as possible an equal number of cases in the series having operation only as I had selected in the irradiated group. The reason for this was to make as fair a comparison as possible between the non-irradiated and the postoperatively irradiated cases because Dr. Graham previously had made a very comprehensive, detailed study and report of Dr. Crile's cases and was unable to state that irradiation had improved the operative results; however, in this report, Dr. Graham included all cases from 1895 to the present time which had been treated by roentgen rays for any cause. But the cases which I am discussing were operated upon by one individual and all were irradiated by one person, relatively the same technique being employed in each case. All were treated five or more years ago.

When one reviews the statistical records in the literature which many surgeons have published concerning their operative results in the treatment of carcinoma of the breast, one must be impressed by the wide variation in the percentage of five-year survivals which have been reported. For example (Table II) it will be found that the aver-

TABLE II

SURGICAL CURABILITY OF CANCER OF THE BREAST

(Compiled from the literature)

	Survival Period Percentage 3 yrs.	5 yrs.
Bier Clinic	33.0	
Black		30.0
Boss Clinic	53.0	
Braine		31.0
Brattstrom		23.0
Brostrum	29.2	23.9
Buchanan		29.0
Bunts		24.1
Crile		37.4
Dahl		24.5
Deaver & McFarland	34.0	
Deelman		30.6
Faure		28.2
Forgue	44.0	22.0
Gassmayer	37.7	20.3
Gibson		18.0
Greenough		27.0
Grenade		28.0
Halsted	38.3	28.9
Handley	48.9	
Harrington		25.8
Hartmann & Bergeret		19.0
Hoffmann	36.3	28.5
Iselin	48.8	36.4
Jennings		25.0
Judd	44.7	39.8
Lee & Cornell		15.0
Lehmann	32.0	28.0
Lindenberg	42.1	31.4
Linder		17.0
Mills		39.8
Morton		31.0
Moschcowitz et al		34.0
Neber	37.5	21.0
Peck & White	40.0	39.1
Perthes	38.5	27.7
Primrose		44.4
Rahm	27.5	15.9
Rostock Clinic	32.7	
Sadlier		24.3
Schloffer Clinic	44.3	
Schoute & Orbaan		35.9
Schwarakopf, 1895-1910	29.4	21.0
1904-1911	42.9	
Smith & Bartlett (radical op.)		37.0
Smith, 1911	43.0	17.0
Steinthal	33.6	33.3
Tichy	38.7	20.9
Walther, 1900-1910	32.0	
1910-1921	34.9	
Warren, 1904	33.0	
Watson Cheyne	54.5	52.1
Willy Meyer, 1905	35.8	
Wintz		48.5
White		36.0

Average—3 yrs. = 38.6%

Average—5 yrs. = 28.9%

age percentage of three-year postoperative survivals in many thousand cases is 38.6 and for five years, it is 28.9 per cent, but one surgeon (Lee) reported that only 15 per cent survived for five years while another reported that as high a percentage as 52.1 lived for the same period of time. Such wide variation in results must indicate some differences in the types of cases which are operated upon by different individuals and it is apparent that there is no unanimous criteria among surgeons for the evaluation of the clinical indications of the extent of disease which may be used as a basis for determining operability or curability. No doubt this is true, because since Halsted and Willy Meyer in 1897, advocated the radical operation for the removal of breast cancer, the technique has become well standardized among good surgeons and each one has the same limitation in the amount of body tissue that may be removed with impunity.

A point which must be borne in mind in studying the statistical records on the results of treatment of cancer of the breast, or in estimating the curability of individual cases is that authorities agree that the natural duration of life in the presence of cancer or the life expectancy in untreated cases is about three years from the time the growth is manifest to the patient. (Table III) But since, on the average, only 38.6 per cent of the patients lived three years after operation, it must follow that some operations were unsuccessful in spite of clinical manifestations which indicated that the growth had advanced to an incurable stage. It also follows that some of these patients would have lived as long or longer had they not been subjected to radical surgical procedure.

There is sufficient evidence to warrant the conclusion that radical operations for cancer of the breast performed in the presence of certain clinical contraindications actually shortens the lives of some patients. Dr. John Deaver[1] believed this when he wrote, "The apparent widespread disrepute in which cancer surgery is held by the laity is due, in large measure, to a willingness on the part of many surgeons to accept hopelessly advanced cases for radical operation . . . The indications for palliative operations are seldom met with—and in the absence of such, any operation, the purpose of which is merely to remove as much of the malignant tissue as possible, in cases where complete removal is clearly out of the question, should be strongly condemned. Operations of this type contribute neither to the comfort of the patient nor to the prolongation of life; on the contrary, the end frequently is hastened by exciting the disease to more active growth." Dr. J. Gottesman[2] from the surgical series of Montefiore Hospital, New York, recently stated, "when radical operation for breast cancer is carried out in the presence of contraindications . . . it shortens the life of the patient."

This point is illustrated again by our two series of cases. If we had known and appreciated certain clinical manifestations of in-

TABLE III

DURATION OF CARCINOMA OF THE BREAST AND NATURAL LIFE EXPECTANCY OF UNTREATED PATIENTS

(Compiled from the literature)

		Months
Daland	About	36
De Kop		29
Gottesman	About	31
Haggard & Douglass		26
Lazarus-Barlow & Leeming		36
Lee		40
Paget		48
Rodman		30
Sibley, Baker, Giss, Williams		34
Sprengel		27
Average		33.5

TABLE IV

DURATION OF CARCINOMA OF THE BREAST AND NATURAL EXPECTANCY FOLLOWING OPERATION AND POSTOPERATIVE ROENTGEN THERAPY

Crile and Portmann

		Group I	Group II	Group III
Average duration of tumor		9 mo.	12 mo.	14 mo.
Dead under 3-year expectancy. All cases.		5.3%	3.2%	63.1%
Dead in 1-12 mo.	Op. only	10.5%	0 %	56.1%
	Op. + x-ray	4.6%	2.8%	43.9%
Dead in 13-24 mo.	Op. only	10.5%	8.7%	85.4%
	Op. + x-ray	13.7%	11.3%	63.5%

curability which subsequent experience has taught us are danger signs, some patients no doubt would have lived as long without operation as they did following operation. Of all our cases (Table IV) in which operation only was performed and in those in which there was clinical evidence that the disease was too extensive to cure (Group III cases), 56.1 per cent died within 12 months and 85.4 per cent within 24 months, and of the irradiated group, 63.5 per cent died two years after evidence of cancer was present. Since the average natural duration of life for untreated patients is 36 months, and if we calculate as nearly as possible from the statements made by the patients as to the first manifestation of their cancer, and deduct these months from 36 months, we find that 63.1 per cent of the Group III patients operated upon died before the expiration of the period of their normal life expectancy. In contrast to this, only 8.7 per cent of the patients in Group II died within two years, yet axillary metastases were present in some of these but there were no clinical manifestations which indicated that they were incurable.

Therefore, since we know that the radical operation for cancer of the breast is limited by certain anatomical boundaries, no matter what may be the extent of the disease, and since it has been found that the growth has advanced to an incurable stage in about one-half of the patients before examination is first made, and since most of these incurable patients would live as long or longer without operation, it would seem logical and humane to try to avoid operation and depend upon other procedures which are known to be beneficial, such as irradiation. At least we know that when irradiation is properly applied life will not be shortened and in some cases distinct benefit will result.

DEGREE OF MALIGNANCY

No doubt, distinctions can be made between incurable and curable cancer of the breast in most instances by a careful clinical study of the extent of the malignant disease and meticulous search for the signs that experience has taught may be considered as indications of incurability. If a surgeon could exclude the incurable patients and not operate upon them, about two-thirds of those upon whom he operates would be cured and such a record would certainly do much to encourage patients with mammary disease to report early to their physicians because more of them could be assured of cure. Unfortunately, there are not one or two definite clinical signs upon which one may determine absolutely the extent of malignant disease of the breast in every case. A number of interrelated manifestations of the process must be taken into consideration before a patient can be placed in the category of the curable or incurable. It also must happen occasionally that at operation, or after examination of the tissues removed, an entirely different conception of some patients may be gained and those seeming to be curable at clinical examination may prove to be incurable. However, even this circumstance is of prognostic value in such cases and no surgeon could be censored for performing an operation where it is so difficult to make a classification preoperatively.

TABLE V

STEINTHAL'S PLAN FOR GROUPING CASES OF CANCER OF THE BREAST

Group I cases are those which have small, slowly growing, movable tumors without skin involvement and with a minimum or no axillary extension which may or may not be found at operation.

Group II cases have distinctly growing but still movable tumors with or without slight skin involvement and with palpable axillary lymph node enlargement.

Group III cases have wide involvement of the breast, fixation of the tumor to the skin and underlying tissues of the chest wall and some degree of fixation of axillary lymph node metastases.

A number of methods have been proposed for the classification or grouping cases of cancer of the breast on the basis of the extent of the disease as indicated by the clinical manifestations. Unfortunately, the American College of Surgeons did not include any clinical classifications in their abstract record sheet for carcinoma of the breast except on the basis of lymph gland or other metastases and this is not sufficiently comprehensive.

The classification suggested by Steinthal has been rather generally employed abroad and is an excellent one (Table V). The cases which I am discussing are grouped

more or less strictly according to Steinthal's plan. Dr. Graham had classified Dr. Crile's cases according to a plan of his own on the basis of the extent of the disease and the gross and microscopic findings, and his Groups II, III and IV conformed quite closely to Steinthal's Groups I, II and III. Independently, I grouped our cases which had been given postoperative roentgen therapy, largely on the basis of the preoperative clinical findings. When Dr. Graham and I compared our group designation in each case of the irradiated series, we agreed in almost every instance and in the two or three instances of disagreement, I made my classification conform to his.

At this time I do not intend to enter into a discussion of all the clinical signs and symptoms of cancer of the breast. However, our experience has shown that *the presence of any one of the following signs indicates an incurable cancer of the breast:* (Table VI) (1) Skin manifestations such as edema, brawny red induration and inflammation, multiple nodules and ulceration; (2) manifestations affecting the breast are edema, diffuse infiltration of the gland, multiple tumors and fixation to the chest wall; (3) the manifestations of metastases—(a) when the axillary lymph nodes are palpably numerous or extensively involved or fixed, (b) the presence of palpable supraclavicular nodes or edema of the arm, (c) the presence of pulmonary, skeletal metastases or the possibility of other organs being affected; and (4) previous incomplete operations.

By edema of the skin we mean a heavy edematous skin which pits on pressure, indicating that the lymphatics are obstructed by neoplastic cells. Sometimes edema is also associated with a red, brawny, indurated skin which is hot and inflamed, but the two conditions may occur independently however. When this inflammatory condition is present, it spreads rapidly *en curraise* and cannot be circumcised. Incision into such a process causes it to spread extremely rapidly even though it may appear to be somewhat localized. Skin nodules indicate multiple foci of growth not only in the skin but probably in the gland and the disease may be more extensive than is indicated by the size of the primary tumor. Ulceration through the skin precludes the possibility of complete removal, but this does not include those cases with ulceration about a nipple which occurs as a sequel of Paget's disease nor all cases with a purplish red discoloration of the skin over a tumor which may appear to be an impending ulcer.

TABLE VI

INDICATIONS OF INCURABLE CANCER OF THE BREAST

THE SKIN	Edema Brawny red induration and inflammation Multiple nodules Ulceration
THE BREAST	Edema Diffuse infiltration of the gland Multiple tumors Fixation to chest wall
METASTASES	Axillary nodes, numerous or extensively involved or fixed Supraclavicular nodes or edema of the arm Distant metastases, lung, bone or other organs
PREVIOUS INCOMPLETE OPERATION	

Edema of the breast as a whole may occur. This may be independent of the edema of the skin, and, when this is seen, it also indicates vascular obstruction by a neoplasm and is a danger sign. When a growth infiltrates the entire gland diffusely, even though the breast may not be fixed to the chest wall, or when multiple tumors are present, the growth is incurable.

The presence of palpably enlarged glands must be given consideration as another indication of the extent of disease. Other factors being equal, one or two large, movable, axillary nodes are not necessarily of serious consequence because they may be excised readily, but when numerous small nodules are found and especially when they extend well up into the apex of the axilla, it usually indicates that the disease has progressed beyond the possibility of complete removal. When the enlarged axillary nodes are fixed in their surrounding tissues, the disease is beyond the hope of cure. The significance of axillary lymph node metastases may be illustrated by our two series of cases. I found that axillary metastases were present in 77.4 per cent of our cases, and this conforms

closely to the generally accepted averages. Of those without axillary metastases (Table VII) or a moderate amount of involvement, which includes Group I and II cases, 61.9 per cent of the operated cases and 70.7 per cent of those irradiated survived for five or more years or 67.0 per cent of all cases. This indicates that the absence of axillary metastases or a minimum involvement gives good results from treatment. However, when those cases (Table VIII) with moderate axillary involvement (Group II) or extensive disease are studied (Group III), we find that only 18.8 per cent survived five or more years following operation alone and 31.1 per cent of the irradiated group, or 25.5 per cent of all patients, survived five years.

As far as palpably enlarged supraclavicular lymph nodes are concerned, I believe it is generally agreed that if such nodes are present, the patient is incurable. Sometimes, however, the supraclavicular lymph nodes may be involved but not be distinctly palpable, but in these cases there is a distinct fullness in this region which is of significance, and also, extension to this region may be indicated by edema of the arm, which is caused by the pressure of metastatic enlarged lymph glands on the brachial vessels in the supraclavicular space.

TABLE VII

RESULTS IN GROUP I AND GROUP II CASES ON THE BASIS OF KNOWN SURVIVALS OPERATION ALONE AND POSTOPERATIVE ROENTGEN THERAPY

Crile and Portmann

	Months	1–12	13–24	25–36	37–48	49–60	60+
GROUP I AND II Operation only (42 cases)	No. Cases	40	38	36	31	26	26
	% Survivals	95.2	90.5	83.3	73.8	61.9	61.9
GROUP I AND II Operation and x-ray (58 cases)	No. Cases	56	51	50	45	41	41
	% Survivals	96.5	87.9	86.2	77.6	70.7	70.7
Total GROUP I AND II Combined (100 cases)	No. Cases	96	89	86	76	67	67
	% Survivals	96.0	89.0	86.0	76.0	67.0	67.0

100 of 182 cases—54.7% had early disease

TABLE VIII

RESULTS IN GROUP II AND GROUP III CASES ON THE BASIS OF KNOWN SURVIVALS OPERATION ALONE AND POSTOPERATIVE ROENTGEN THERAPY

Crile and Portmann

	Months	1–12	13–24	25–36	37–48	49–60	60+
GROUP II AND III Operation only (64 cases)	No. Cases	41	27	23	16	12	12
	% Survivals	64.0	42.2	35.9	25.0	18.8	18.8
GROUP II AND III Postoperative x-ray (77 cases)	No. Cases	58	47	39	33	26	24
	% Survivals	75.3	61.0	50.6	42.7	33.7	31.1
Total GROUP II AND III Combined (141 cases)	No. Cases	99	74	62	49	38	36
	% Survivals	70.2	52.5	44.0	34.7	26.8	25.5

141 of 182 cases—77.4% had axillary lymph gland metastases

Under no circumstances should a patient be operated upon for cancer of the breast until a search has been made for evidences of distant metastases. Roentgenological studies of the lungs should be made because the onset of pulmonary metastases sometimes is very insidious. Usually, the first manifestations are shortness of breath and an irritating, unproductive cough. Not infrequently, these symptoms may be present but metastases cannot be demonstrated roentgenologically at the time; however, extensive involvement may be found later. We are of the opinion that usually in such cases the extension of the disease has taken place into the parasternal groups of lymph nodes and thence to the tracheobronchial glands and not by thrombi of neoplastic cells into the pulmonary parenchyma as is the usual mode of metastatic implantation. Unfortunately, it is very difficult to determine by early roentgenographic examination those cases in which metastases has occurred only to the mediastinal group of lymph nodes. Nevertheless, it is of considerable advantage to make preoperative roentgenographic studies of the lungs which may be used for comparison later, and this is true especially if symptoms of pulmonary involvement should develop. In the advanced Group III, most of our patients who died within a year after operation died from pulmonary metastases.

The cause of rheumatic or neuralgic pains should be investigated carefully because such symptoms in the presence of cancer of the breast not infrequently indicate the presence of skeletal metastases. Some surgeons advise preoperative roentgenographic studies of at least the long bones and spine, and, in some cases, this may be a wise and commendable precautionary measure.

If a patient has had an incomplete operation previously, he can seldom be cured by subsequent radical operation. It is known that rapid extension of the disease is sometimes caused by cutting through a cancer of the breast or manipulating it in any way. This should not be interpreted to mean that biopsy is not a justifiable procedure in questionable cases, but, if necessary, it is best to excise a suspected growth completely without cutting into cancerous tissue and then if malignancy is present, a radical operation should be performed immediately without the delay of even another day.

INHERENT DEGREE OF MALIGNANCY

The second factor which influences the curability of cancer of the breast is the inherent degree of malignancy. Unknown factors influence the relationship of the growth potentiality of a malignant tumor and the physiologic defense mechanisms of the host. We have no accurate or reliable method of measuring these factors nor of evaluating the defensive mechanism which may be set up.

Attempts have been made to estimate the inherent degree of malignancy of many kinds of neoplasms on the basis of different degrees of morphologic variations in their histology. Within the past few years considerable interest has been shown in the grading of carcinomas according to their histology and many clinicians may think that pathologists have recently developed this study, yet David P. von Hansemann[3] published a monograph in 1893 in which the degree of anaplasia was considered as an index of the clinical degree of malignancy. Since that time, many other suggestions concerning the histologic grading of carcinomas have been made by pathologists and an excellent review of the literature and a study of the subject as applied to carcinomas of the breast was made recently by C. D. Haagensen.[4] He studied and graded a large series of cases and applied each of fifteen different histologic criteria which had been suggested by a number of pathologists. He found that nine were of no special value, but six did show some relationship to the end results of treatment. These six factors are shown in Table IX.

Haagensen concluded that histologic grading in cancer of the breast "is only an approximation and a rough one at that" and "should not be regarded as in any sense competing with the clinical data bearing on prognosis to which it is, of course, subordinate in importance." In the discussion of Haagensen's presentation, Dr. James Ewing stated, "When it comes to predicting what will happen to a patient, certainly no pathologist or

TABLE IX

HISTOLOGIC CHARACTERISTICS FOUND TO HAVE PROGNOSTIC SIGNIFICANCE IN CARCINOMA OF THE BREAST ACCORDING TO

C. D. Haagensen, M. D.

1. Papillary character: Origin in a cyst formed in a duct
2. Comedo character: Growth mainly ducts, often with central necrosis
3. Adenoid arrangement of cells
   a. Marked
   b. Slight
   c. Absent
4. Variation in size and shape of nuclei
   a. Slight
   b. Moderate
   c. Marked
5. Number of mitoses
   a. Few
   b. Moderate
   c. Numerous
6. Gelatinous degeneration

clinician will ever say that histologic grading will give us the information that can be obtained from the clinical index."

As clinicians, then, we may assume that there is no known accurate method of grouping the inherent degree of malignancy in any case except by estimating the extent of the disease as found by examination of the patient. At any rate, histologic studies must be made postoperatively and they give no assistance in preoperative diagnoses or prognosis. As far as the possibility that the histologic appearance may indicate the degree of malignancy is concerned, it must be borne in mind that the presence or absence of varying degrees of any or all the factors which have been found to be of significance is only the indication of a local process which is observed in a tiny section of tissue. It must be remembered also that the extent of the disease, no matter what the histologic appearance, may be great or small, and, if it is great, a cure cannot be effected, but if the process is small and localized, the patient can be cured by proper treatment. Also, most malignant tumors of the breast show different types of histologic structure in different areas; therefore, the growth and the involved breast and other tissue as a whole must be taken into consideration in relationship to the individual patient and little information of prognostic importance can be obtained from studying only a few sections of a neoplasm.

METHOD OF TREATMENT

The third factor which influences the curability of cancer of the breast is the method of treatment which is employed. Experience has taught that there are two effective methods—operation and irradiation. The earliest writers described surgical procedures, but irradiation was unknown as a therapeutic procedure until the time the radical operation was first advocated. The technique of radical operation has changed but little in the two decades that it has been generally employed. Irradiation procedures, however, have improved astonishingly with increasing knowledge of physics and electromechanics, and it should be remembered that it is less than fifteen years since we have had effective radiation in the treatment of cancer. Therefore, it would be as illogical to compare the results of irradiation applied prior to that time with modern methods as it would be to compare the results of the surgical procedures of two hundred or more years ago with the radical operations performed today. Soon after roentgen rays were first applied therapeutically in 1897, their power to destroy malignant tissue was recognized and this led to investigations concerning the relative sensitivity of different tissues to the destructive influence.

The studies in the relative radiosensitivity of neoplasms which have been made by pathologists in collaboration with radiologists and also the critical comparisons of the results which are obtained by different methods have increased our knowledge of the various aspects of malignant diseases considerably. We now know that among the most radioresistant neoplasms are those which occur in the mammary gland. On this basis we realize the necessity for improving our methods of irradiation and this is being done constantly. This is illustrated by the fact that, even five years ago, it was a bold radiologist who applied more than two or three skin tolerance doses to a cancer of the breast within a year, but within the past few years, many times that does is given safely within a month or two by improved methods. This means that roentgen therapy will be much more effective in each case or of greater ben-

TABLE X

A SERIES OF TRACED CASES OF CANCER OF THE BREAST

Operation performed by George Crile
Roentgen therapy administered by U. V. Portmann

Combined and Compared Results on the Basis of the Percentage of Known Survivals

	Months	1–12	13–24	25–36	37–48	49–60	60+
Group I	Op. only 19 Cases	89.5	89.5	89.5	89.5	78.9	78.9
	Op. x-ray 22 Cases	95.4	86.3	81.8	81.8	81.8	81.8
Group II	Op. only 23 Cases	100.0	91.3	82.6	60.9	47.8	47.8
	Op. x-ray 36 Cases	97.2	88.7	88.7	75.0	63.8	55.5
Group III	Op. only 41 Cases	43.9	14.6	9.7	5.0	2.4	2.4
	Op. x-ray 41 Cases	56.1	36.5	17.0	14.6	7.3	7.3
All Cases	Op. only 83 Cases	69.8	53.0	47.9	39.7	32.5	32.5
	Op. x-ray 99 Cases	71.7	66.6	57.5	51.5	44.5	42.5

efit in more cases, depending upon the intensity of radiation which can be applied.

However, I believe that even as it was applied in the past, roentgen therapy has proven to be a valuable adjunct to operative procedures for breast cancer. I cannot say that many patients have been cured of their disease but that many have lived longer and more comfortably. The fact that roentgen therapy does delay the progress of the disease is amply proven by the palliation which has occurred in many cases with skeletal metastases. In 1925, I had the honor of discussing this problem of cancer of the breast at the first meeting of the Radiologic Section of this Society and stated my belief at that time that the status of about ten per cent of patients was improved by postoperative roentgen therapy. I have not changed my opinion and would like to predict that even better results will be brought about in the next ten years.

It is not my prerogative to discuss the operative treatment of cancer of the breast. We know that an average of 29 per cent of the patients survive for five years after operation. (Table II) In the series (Table X) of Dr. Crile's cases 32.5 per cent of those having operation alone lived five years, but 42.5 per cent of those to whom I gave postoperative irradiation survived for the same length of time. The ratio of each type of case on the basis of the extent of the disease was approximately the same in each series as previously mentioned, and every one of the cases was traced.

If we review these statistics according to the groups which indicate the extent of the disease, it will be noted that there is practically no difference between the irradiated and the non-irradiated cases in Group I or in the very early cases without axillary metastases. This would be expected because operation alone should cure a very large percentage of these patients and irradiation can be of no assistance because all the malignant tissue has been removed in most cases. Therefore, when axillary metastases cannot be found, postoperative roentgen therapy need not be employed. If such a patient dies from cancer, the surgeon has not removed all of the local growth in most cases; however,

in a few cases, extension may have occurred through the parasternal nodes and could not be detected.

Among the cases in Group II in which early tumors and some degree of axillary metastases were present, there is little difference in the percentage of survivals between the operated and irradiated patients until after the third year. Then, more of the irradiated patients (75.0 per cent) survived than did those who did not receive irradiation (60.9 per cent). This difference extends through the five-year survivals when 47.8 per cent of the non-irradiated patients and 55.5 per cent of the irradiated patients are still alive. This would indicate that when axillary metastases are present, the extension of the disease is delayed by irradiation, and this point is illustrated also by the incurable Group III cases. Of this group, less than half (43.9 per cent) of the patients survived the first year after operation, and 14.6 per cent the second year after operation. But a somewhat higher percentage (56.1 per cent) of patients live for one year after irradiation, and 36.5 per cent for two years. Also, it will be noted, that in the succeeding year periods, a slightly higher percentage of the irradiated patients survive, although, I must say, that each patient who is surviving in each series of Group III still has cancer. The futility of operating upon these incurable patients is shown by the fact that less than half (43.9 per cent) of the patients who were operated upon survived twelve months and less than one in seven (14.6 per cent) for twenty-four months.

CONCLUSIONS

The factors which influence the curability of mammary cancer are: (1) The extent of the malignant process, (2) the inherent degree of malignancy, and (3) the methods employed for treating it.

Clinicians should classify patients according to the extent of the disease, and if certain signs are present which indicate that the disease is incurable, radical operation should not be performed because most of these patients will not live as long following such a procedure as is the average natural duration of life if no treatment were instituted. However, irradiation will permit these patients to live as long or longer than their normal life expectancy under these conditions.

There is no known satisfactory measure of the inherent degree of malignancy of cancer of the breast in individual cases except those clinical manifestations of the extent of the disease which are present.

It has been found that following radical operation for cancer of the breast, an average of 28.9 per cent of the patients survive for five years in all cases. About 50 per cent of all patients are incurable when operation is performed, and of these, 63 per cent die before the expiration of their life expectancy. If only clinically curable patients are operated upon, more than 60 per cent will survive for five or more years.

Our experience indicates that when there has been no evidence of metastases to the axillary lymph glands, roentgen therapy need not be given, but in 77 per cent of the cases in which there has been axillary lymph gland metastases, postoperative roentgen therapy has prolonged the lives of about ten per cent of the patients.

It should be recognized that in order to cope with malignant processes, it is necessary for physicians to lay aside bigotry, recognize the benefits and limitations of different methods of treatment, and to employ all known beneficial procedures in the manner which experience has shown will be the most effective.

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DISCUSSION

Dr. J. R. McNutt (Duluth, Minn.): This has been a very interesting and instructive presentation. Dr. Portmann is to be congratulated on so thorough a study both of the literature and of the presentation of his own cases.

(Continued on page 582)

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« « « EDITORIALS » » »

The Clinician's Function in Medicine*

By THE RT. HON. LORD HORDER, K. C. V. O., F. R. C. P.

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I. Whatever may be the special branch of medicine that attracts us, it is commonly accepted that it is at the bedside where, on the one hand, the vital expressions of diseases are manifested and where, on the other, the contributions made by the laboratory, both to diagnosis and to therapy, must eventually be tested. In the words of the great French clinician, "Les malades, toujours les malades." But medicine provides such a large field for human interest and activity that there are many points at which a man may branch off into a whole life's work of relatively detached scientific effort. Any one of these digressions may take him so far away from the patient that, quite joyfully and quite successfully, he may make valuable contributions to what becomes, in effect, pure science. He may then be tempted to consider clinical medicine but a poor affair, scarcely worth the pursuit of a trained intelligence. Whereas I regard it as a very inviting field for the most highly cultivated minds—a field in which meager achievement, far from indicating an essential poverty in the soil that is being tilled, signifies only that the husbandman is not always as alert and well-equipped as he might be. However, what I say today is not intended as an apologia for the clinician so much as a brief survey of his place in medicine and how his functions are, in my judgment, best performed.

In the view of some people the clinician has not advanced, or developed, proportionately with those of his colleagues who are primarily concerned with the ancillary subjects of surgical technic, bacteriology, and biochemistry. Or, alternatively, the clinician's function has by some been considered to be superseded by those who engage in these last-named pursuits. I cannot accept these estimates and I think they are due to a false, or a forgotten, conception of the clinician's function. Although this remains what it fundamentally always was—the collection and evaluation of all available data which are

* Read at the annual meeting of the Medical Society of the State of New York, New York City, April 28, 1936. Reprinted in part by permission of New York State Journal of Medicine.

pertinent to the diagnosis and the treatment of the sick person—I believe that the growth of the means by which this function is achieved has been even greater in the case of the clinician than in the case of any one of his colleagues, for the reason that the whole of their combined knowledge is available for him if he is familiar with it, and cares to use it.

As I say, the fundamental function of the clinician is to collect and to evaluate data. But *what* data? The clinician is not a *mere* collector of data. If he were, diagnosis, and successful treatment, would be as easy for one doctor as for another. Nor is he a mere recorder of cases seen. If he were, the palm would go to the hospital registrar or to the practitioner whose card-index system is the best—a consideration which waives a fact of which we are well aware, that it is possible, nay easy, to see a great number of patients and yet not see their diseases. It is the *essential* data that we want, not the unessential. It is data that are associated, not data that are disassociated. The capacity to neglect is as important as the capacity to take notice. True, the more obscure the case the less we can afford, in the first survey, to omit any examination; but after a time there comes what may seem to some an almost astounding negligence. This is not forgetfulness, nor a lapse from good methods; *it is the ability safely to omit.*

* * *

During the recent period of intensive laboratory investigation on the clinico-pathological side of diagnosis, the notion has arisen that the clinician's observations are not really scientific, that they are of the nature of guesswork, whereas everything that happens in the laboratory is controlled by the infallible rules of logic. The argument went rather like this: The test tube and the microscope cannot lie. But God alone knows if what the physician thinks is an enlarged spleen is the spleen; or if rose spots are not "any old spots"; or the association of a soft and infrequent pulse with a continued high fever is not some odd trick of Nature designed to intrigue the curious-minded; and why should not a week of intense headache pass away somewhat suddenly and be replaced by a muttering delirium; and an unexplained deafness appear? Funny things like these do happen to people who suffer from a disease of microbic origin. But the one certain thing is that the disease isn't typhoid fever, or any infection in the T.A.B. group, because there is no agglutination of the laboratory stains of those organisms by the patient's serum.

Strange, this idea that facts have a different value according as they are observed at the bedside or in the laboratory. Stranger still, the idea that one negative observation in the laboratory should, even by responsible clinicians, be regarded as more important than the co-existence of six positive observations at the bedside. In the words of the logician, "we can never, by a single experiment, prove the non-existence of a supposed effect." If "science arises from the discovery of identity amidst diversity" then it matters not if the identity be discovered by careful observation of the patient clinically or pathologically. The whole question is, is it a *true* identity? But this, in the last resort, depends upon the critical judgment of the observer. Granted that the exercise of judgment at the bedside is more difficult than it is in the laboratory, mistakes in judgment are not confined to the bedside.

* * *

Now the clinician's criteria are, in general, less exact than the pathologist's, nor can they be made so exact very easily; but if they are made severe, as they should be—if nothing is termed positive which is only doubtfully positive; if the clinician's judgment concerning his observations is controlled by reliable technic; if discovered identities are unequivocal—then the clinician's "facts" are as scientific and as logical as are those of the pathologist. The truth is that clear thinking, with forbearance, is essential to the satisfactory solution of a diagnostic problem whether the contribution comes from the laboratory or from the bedside.

There is a technic of the mind as well as of the eye and of the hand, and the former is quite as essential as the latter. It is not only what you find *at* the bedside, it is also what

you bring *to* the bedside that matters. The eye sees what it takes with it, the power of seeing; in other words, it is the *mind* that *sees*. And surely it is the same in the laboratory? In both spheres there comes to some—slowly, painfully, towards the end (alas!)—facility born by patient practice out of time. Clinician and pathologist are more akin than they sometimes realize. Each of them takes a pride (which the other regards as excessive) in his small discoveries, and each of them lacks humility (or so the other thinks) in face of the certain fact that every day, whether it be in the ward or in the laboratory, momentous things are happening under their very eyes, yet they see them not, for they are both under the same ban—they cannot live in advance of their generation.

But clinical medicine is just now coming back into its own. The Prince has taken notice of the neglected charms of our modest Cinderella. A marriage is being arranged. Professors are leading the bride to the altar, and the name of her bridegroom is Research.

* * *

II. Today we are witnessing the apotheosis of the machine in human life and it is not surprising to find that medicine, like other spheres of action, is being mechanized. The public has come to believe that machinery is revolutionizing the healing art and is dispensing with the need for human judgment. It is true that the introduction of instruments of precision into medicine has been of great service but the interpretation of the results obtained by them in the individual case still demands wisdom and experience on the part of the doctor. Where the machine is greater than the man the patient perishes. A large section of the public does not understand this. It has such an incorrigible love for apparatus, and what it produces, that it hailed with acclamation a box of gadgets, constructed in defiance of all scientific principles, which claimed to hand out an exact diagnosis, and even the appropriate treatment, and thus make the application of so fallible a thing as the human mind unnecessary.

Failing the reduction of medicine to machinery, the public seeks salvation in the specialist and the expert; and the more apparatus, and the more complicated, employed by these, the greater its confidence. The number of really intelligent citizens, whose health is their best asset and yet who have no physician or general practitioner, has greatly increased of late years. In consequence of this fact, situations arise which are not only ludicrous but dangerous. Awakening in the night with a pain in the belly the immediate anxiety is not whether he will find the physician available, but whether the right specialist will be sent for. Is it the appendix, or the gallbladder—or the stomach—or the kidney-man he needs? What if he rings up the wrong one? Perhaps the trouble isn't in his belly at all, for he suddenly remembers that what his business friend thought was a severe attack of indigestion last week turned out to be coronary thrombosis. So perhaps it is a cardiologist he needs? God! how difficult life—and especially medicine—is!

* * *

The spread of specialism and the increased interest of the public in medical matters have both of them combined to narrow the function of the general practitioner, who is, or who should be, the clinician *par excellence,* almost to the vanishing point. I regard this as being no less dangerous to the public than it would be for the passengers of the ship if the captain left the bridge and the chief engineer, or the chief steward, or the radio operator, took his place. But I see the equivalent of this being done day after day. Whereas formerly, the physician kept control of the case and exercised his judgment in deciding the program of treatment, he now, all too often, stands aside and allows his specialist colleagues to take charge, over the shoulders of whom, as it were, he gets an occasional and momentary glance of his patient. Or—and this experience becomes more and more frequent—he isn't there at all. The specialist is there from the first, one, or a number, for it is not uncommon to see a patient being treated by a committee, just as though he were a banking concern, run by a board of directors; only the patient is in a worse plight, because even a bank has its manager.

But the trouble is not alone on account of

the growth of specialism and the egregiousness of the public. "The fault . . . is . . . in ourselves that we are underlings."

To tell the truth, we are afraid of simplicity, and yet it is simplicity alone that can prevent the rot from spreading. Simplicity, with a dash of courage and independence. We are scared stiff, if the fact be known, lest, whilst we slept last night, or whilst we took our brief holiday, some great advance may have taken place in medicine of which we are unaware. But we needn't worry, for science, like nature, never proceeds by leaps. Besides, we shall hear all about it soon enough, either from the chemist's traveller, or from our patients, or from the headlines in the daily press. In other words, that lag, which is often called conservation, and for which we are so often censured, is an extremely useful asset in the doctor's mental equipment. For nature is herself conservative, and yields little or nothing to our hustling.

Meantime, we must try, quite tactfully, to break up the situation resulting from the patient's own knowledge ability—if I may use such a word, since this actually obstructs us in our getting to the root of his trouble. He knows a lot of technical terms, and quite often he can no longer tell us his symptoms in plain language. "What is the matter with you?" we ask him. "Blood-pressure, doctor," he replies. "No, but what are you suffering from?" "I told you, doctor, blood-pressure." And since we must make a beginning somehow we say, "Yes, but tell me how it is affecting you." "Oh, you mean my giddiness," or "my headache," and at last we are back at scratch. He carries his electrocardiographic tracing about with him and points out to us the deviations of the T-wave from the accepted normal. The x-ray pictures of his opaque meal have preceded his visit—with excess postage to pay—so—also have the results of a biochemical research, duly recorded, with a zeal more excessive than commendable, upon a form of enormous size . . . And if now we gently push these things aside and ask him a few simple questions and then examine him with our unaided senses, he thinks our methods are mediaeval. He little knows how ultra-modern they really are . . .

* * *

But the path by which we regain our clinical acumen, as we must regain it in the patient's and our own interest, matters little: whether it be by the new road of clinical research or by frustration, or by economy or by sheer mother wit. We never should have left the bedrock of clinical medicine. And the sooner we return to it the better.

A Professional Problem

IN THE rapid procession of scientific medicine there are occasional times when its votaries are rushed hurriedly past some development of monumental moment. That fact alone justifies a pause now and then to take inventory and return to cover properly those occasional matters that are altogether too fundamental to be missed.

Bladder tumor, among all the killing tumors that involve the viscera of man, is by far the easiest to recognize and, found early, by far the simplest to treat and cure. Yet the bête noire of every urologist is the ever recurring problem of miserable souls dying with bladder cancer. In this paradox lies a phase of medicine serious enough, surely, to pause and think about. Certainly, our campaign to educate the public to the necessity of early diagnosis here as in all other phases of cancer is a worthy cause. But that is not enough. Even in this day of enlightenment there are many, many of the rank and file of our profession who continue for months and even years with the futile use of medicines as their plan of management for the patient who has gross blood recurring in the urine. Hematuria, like any other orificial bleeding not readily explainable, is more fraught with serious import than almost any other symptom that a patient might present. Moreover, it is most meaningful when, out of a clear sky, it comes innocently unassociated with other complaints and disappears in a day or so as mysteriously as it comes. Given exactly that story and the odds are ten to one that a bladder cancer is in the making.

Gross blood in the urine is too obvious not to be readily recognized by a patient and rarely indeed does he fail to heed it. The real problem in bladder cancer lies within the profession. J. C. S.

. . . . THE PRESIDENT'S PAGE . . . .

Significant Changes

IF THE medical profession is successfully to resist the encroachments of state medicine, it must make use of every legitimate weapon of defense. One of the strongest of these, as I see it, is a spirit of cooperation, not only among ourselves as practitioners, but also with various other organizations engaged in so-called "social welfare" work, if such cooperation can be carried out without sacrifice of those principles which we know to be right and just.

As we all recognize, the practice of medicine at the present time is no longer as simple as it was twenty-five or thirty years ago. Marked advances have been made in our knowledge of the etiology and pathology of disease; newer and more accurate methods of diagnosis have been developed. In many instances, as a result of these advances, our concepts of treatment have undergone revolutionary changes. Also as a result of these advances, which have resulted in an enormous broadening of the field of knowledge, the rise of specialism has been rendered to some degree inevitable.

Coincidentally with the changing viewpoints and the evolution within the medical profession, there have likewise occurred changes in viewpoints and evolution within society at large. One of the important factors which has given rise to these changes is the development of our complex industrial civilization; another is the enormous increase in educational facilities and opportunities; as a third factor, the radio must not be overlooked. Many more will readily occur to anyone upon a little thought. Consequently, the mass-mind, so to speak, with which the medical profession of the present day deals, is not the same as the mass-mind with which the medical profession of a generation ago dealt. Yet it is to be feared that this fact is all too frequently overlooked to the detriment of our cause, which is the preservation of the private practice of medicine. In other words, we have been so occupied with our first duty, which is the care of the sick, and with our constant endeavors to improve the quality of this care by means of scientific advances, that we have not taken sufficient cognizance of certain significant changes which have been going on about us, and which are bound to exert their influences upon us, whether we wish it or not. If the private practice of medicine is to endure, this situation must be recognized and properly met.

Today, as has been the case in the past, and as will undoubtedly be the case in the future for a long time to come, the primary function of the physician is the care of the sick, and the cure of disease, so far as it is humanly possible. But today, as has *not* been the case until the very recent past, but which will probably be the case to an increasing degree in the future, the public expects the medical profession to maintain a position of leadership in matters of public health; and if this leadership is not so maintained by those best qualified, it will be assumed by others less capable of it.

The last few years have seen a gradual but steadily increasing interest on the part of the public at large in all matters pertaining to health. Various causes have contributed to this, not the least important of which are the efforts of the medical profession itself to disseminate information on cancer, tuberculosis, and other diseases which may possibly be ameliorated by a campaign of education. As a result of this interest on the part of the public, we today have anti-tuberculosis associations whose membership is largely laymen, we have lay associations for the care of the disabled and crippled, we have lay heart associations, we have pre-school clinics and many other associations and forms of activities. To fulfill a demand which has been thus created, there has been a great increase in the number of nurses in the public health field, and a new profession, whose members are rapidly growing in number, has arisen,—that of the trained social worker.

Note well the fact that the medical profession, through its efforts to educate the public along certain lines, has been largely, even though indi-

rectly responsible for most of these movements. By this I mean to say that the medical profession, by teaching that certain things can be accomplished by group action, awakened public interest and stirred public sympathy with the handicapped, to the point where these various organizations, whose membership consists largely of laymen, were formed. When the organizations attempt to carry on, what happens? In the very nature of things, they cannot fulfill their purposes without the assistance of the medical profession, but is this assistance cheerfully given? We all know the answer: the majority of the members of the medical profession, when approached, display a decidedly lukewarm, if not a definitely antagonistic attitude, and the work is left to public health nurses, social workers, and others.

Now it appears to me that such an attitude on the part of the medical profession is decidedly a mistaken one for us to assume. In the first place, we must accept the fact that these movements will go on, in spite of lack of encouragement on our part; the people taking part in them are animated by a crusading spirit, and resistance or indifference serves only to make them more determined. As a matter of fact, they *should* go on; such energy, properly directed, is capable of accomplishing an immense amount of good. Therefore, in the second place, assuming the foregoing to be true, would it not be much more to our credit to meet this problem in a spirit of cooperation, and endeavor to direct the energy of all these movements into channels where it would do the most good? Such a course could not fail to enhance the esteem in which the medical profession is held in the eyes of the public. On the other hand, we gain absolutely nothing by indifference or antagonism, because such a spirit simply engenders a similar spirit in others.

It would appear that much of this antagonism arises as a result of misunderstanding and ignorance on both sides. Private practitioners of medicine are very much occupied with the treatment of disease; during these latter years especially, their economic worries have been intensified; in short, they have been fully engaged in meeting what appear to be their own immediate and most pressing problems. As a result of all these things, they have taken little interest in the larger problems of public health.

On the other hand, it is equally true that in a great many instances, social workers and others have shown an equal, or even greater ignorance of the fundamental principles and problems of medical practice. They have endeavored to put the practice of medicine into a form in which it can be solved as an engineering problem, let us say. The fact that the physician deals with human beings as individuals and not *en masse* is often completely ignored, and the spiritual element of medical practice is entirely lost sight of.

If, in every community, a union of these opposing forces could be brought about, based on mutual tolerance and respect, much progress could undoubtedly be made. In order for this to occur, however, physicians will have to adapt themselves in some measure to the changed condition of society. They will have to realize that these various lay movements are going to continue, either with the sanction of the medical profession, or without it. On the other hand, sociologists, public health nurses, and others must also be made to understand the viewpoint of the physician.

To attain this objective requires tact and diplomacy on the part of both sides; it also requires the expenditure of some time and energy on the part of the physicians for which there can be expected no direct financial return. The ultimate reward, however, is of more value than immediate dollars and cents.

In almost every community of any size, there exists an opportunity for the medical profession, working through the county society, to sell itself to the public at large; an opportunity to prove that it has the interests of the community at heart; an opportunity to demonstrate that it is really concerned with assuming the leadership in all matters pertaining to community health. If every county society in America would make the most of these opportunities, there would be an immediate end to all talk of state medicine.

Ralph M. Carter.

SOCIETY PROCEEDINGS

COLUMBIA

The Columbia County Medical Society met at St. Savior's Hospital at Portage at a six-thirty o'clock dinner together with members of the Woman's Auxiliary. Guests were Mr. J. G. Crownhart, secretary, who spoke on "Organized Medicine" and Dr. Lester McGary of Madison, who gave a scientific address on "Allergy ond Hay Fever."

The applications of Dr. J. A. Rawlins of Portage and Dr. Arthur Harris of Friendship were passed upon and approved by the censors.

A motion was made and seconded and carried that the charter of the Columbia County Medical Society be changed to read Columbia, Marquette and Adams County Medical Society and that the State Secretary make the proper recommendation to the House of Delegates at its September meeting. C. J. R.

PRICE–TAYLOR

The May meeting of the Price–Taylor County Medical Society was held on Thursday, May 28, at Medford.

Dr. E. A. Riley of Park Falls presented a very instructive talk on "The Relation of the General Practitioner to the Specialist."

ROCK

The May meeting of the Rock County Medical Society was held at the Monterey Hotel, Janesville, on the evening of the 26th. Thirty physicians were present.

The Economics Committee reported that the proposal of the employees of an industrial firm in Beloit requesting a rating for medical service on a contract basis had been dropped by them.

The Rural Health Committee stated that plans had been formed to give the tuberculin test to the children in the rural schools, this program to be carried out in the fall.

The application for membership of Dr. Joseph C. Springberg, Beloit, was read and referred to the Board of Censors.

Dr. F. W. Leeson of Beloit was voted an honorary member because of twenty-eight years of faithful attendance and service to the society.

Dr. L. W. Paul, Madison, gave an illustrated talk on "The Value of Roentgenologic Examination in the Diagnosis of Obscure Intra-Abdominal Conditions." C. R. G.

SAUK

The Sauk County Medical Society held its monthly meeting on May 27 at the home of Dr. H. A. Bachhuber of Sauk City.

Case histories were presented by Drs. E. V. Stadel of Reedsburg, F. A. Fike of Reedsburg and E. H. Grumke of Limeridge which were discussed by the members present.

WAUPACA

The Waupaca County Medical Society met on June 4 at the Inn Hotel, Waupaca. Officers for 1936 were elected as follows: President, Dr. J. H. Murphy, Clintonville; vice-president, Dr. Sam Salen, Waupaca; secretary-treasurer, Dr. John W. Monsted, New London.

Board of Censors: Dr. E. H. Jones, Weyauwega and Dr. F. J. Pfeifer, New London.

Delegate, Dr. A. M. Christofferson, Waupaca; alternate delegate, Dr. R. K. Irvine, Manawa.

WINNEBAGO

A dinner meeting of the Winnebago County Medical Society was held on May 28 at Sunnyview Sanatorium.

Dr. C. A. Harper, state health officer, Madison, was the principal speaker.

FOURTH COUNCILOR DISTRICT

The Fourth Councilor District held its eleventh annual meeting in the County Court Room at Lancaster on Tuesday afternoon, May 26. About sixty physicians were present.

Dr. Rush Godfrey, president of the Grant County Medical Society, presided over the following program:

"State Medicine and the Private Practitioner" by Dr. Ralph M. Carter, Green Bay, President of the State Society.

"Medical Science and the Public" by Dr. Eben J. Carey, Dean, Marquette University School of Medicine, Milwaukee.

"Iritis" by Dr. E. H. Brooks, Appleton.

"Pneumonia" by H. C. Hinshaw of The Mayo Clinic, Rochester.

"Pathology and Its Relation to Surgery" by Dr. Erwin R. Schmidt, Madison.

In the evening, the members and their wives were guests of the Kiwanis Club at a six o'clock dinner at the Wright House. Dr. Wilson Cunningham, Platteville, councilor for the District, acted as toastmaster, and introduced Dr. Arthur W. Rogers of Oconomowoc, who gave an interesting travel talk on a recent trip to Mexico, illustrated by moving pictures. This was followed by a motion picture on a salmon-fishing trip in New Brunswick.

There were more than fifty present at the afternoon session, and one hundred twenty enjoyed the dinner and evening program.

The program was arranged by Dr. Mina B. Glasier, secretary of the Grant County Medical Society.

FIFTH COUNCILOR DISTRICT

The annual meeting of the Fifth Councilor District was held at Gonring's Resort, Big Cedar Lake, West Bend, on June 25. Following is the program:

1:30 P. M. "The Treatment of Peptic Ulcer" by Dr. A. B. Rivers, of The Mayo Clinic.

2:15 P. M. "Acute Appendicitis" by Dr. J. T. Priestley, also of The Mayo Clinic.

3:00 P. M. "Treatment of the Toxemias of Pregnancy" by Dr. E. L. Cornell of the Chicago Lying-in Hospital.

4:00 P. M. "The Treatment of Injuries of the Chest" by Dr. R. B. Bettman of the Michael Reese and Cook County Hospitals, Chicago.

5:00 P. M. Showing of the latest development of photography of surgical operations in natural colors with telescopic lenses, presented by H. B. Vogel, official photographer of the Illinois State Medical Society.

6:30 P. M. Dinner at Gonring's Resort, which was followed by an illustrated talk on "Medical Practice in Labrador" by Dr. C. W. Eberbach of Milwaukee.

Dr. Ralph M. Carter, President of the State Society, was a guest of the meeting and spoke on the work of organized medicine concluding the evening program.

SEVENTH COUNCILOR DISTRICT

The twelfth annual meeting of the Seventh Councilor District was held on June 10 at Tomah at the U. S. Indian School and at the Hotel Sherman.

During the morning and afternoon, the following papers were presented:

"Bladder Neck Obstruction" by Dr. Alf Gundersen, La Crosse.

"Back Injuries, Their Diagnosis and Treatment" by Dr. Merritt LaCount Jones, Wausau.

"Commoner Skin Diseases, Their Diagnosis and Treatment" by Dr. H. R. Foerster, Milwaukee.

"The Open Reduction of Fractures" by Dr. James A. Jackson, Madison.

"Recent Advances in Endocrinology" by Dr. E. J. Kepler, Mayo Clinic, Rochester, Minn.

"Diagnosis and Present Treatment Methods of Tuberculosis" by Dr. H. M. Coon, Stevens Point.

After the dinner and social hour, addresses were given by Dr. William S. Middleton, dean of the Medical School, University of Wisconsin, on "Certain Practical Phases in the Diagnosis and Treatment of Heart Disease" and Mr. J. G. Crownhart, secretary of the State Society, who spoke on "The Immediate Future."

SECTION ON RADIOLOGY

The twelfth annual meeting of the Section on Radiology of the State Medical Society of Wisconsin was held at the Elks Club, Kenosha, on June 5 and 6. Commencing at one o'clock in the afternoon of Friday, June 5, the following program was presented:

Address of the Chairman.

Address of the City Manager of Kenosha. Mr. H. C. Laughlin.

Address of the Secretary of the Chamber of Commerce by Mr. H. B. Woodlief.

"Technical Aids in Roentgenography of the Chest" by Dr. L. W. Paul, Madison.

Pulmonary Tuberculosis Symposium

"Clinical Phase of Pulmonary Tuberculosis" by Dr. H. M. Coon, Stevens Point.

"Pathology of Pulmonary Tuberculosis" by Dr. M. Fernan-Nunez, Milwaukee.

"Early X-Ray Diagnosis of Pulmonary Tuberculosis" by Dr. C. E. Cook, Chicago.

"Indications for Surgical Treatment of Pulmonary Tuberculosis" by Dr. Forrester Raine, Milwaukee.

Discussion on symposium opened by Dr. Charles Ulrich, Kenosha.

"Physical Problems in X-Ray Therapy" by Dr. Robert S. Landauer, Chicago.

"Prevention and Treatment of Skin Reactions Due to Radiation" by Dr. Henry Schmitz, Chicago.

After the dinner at six-thirty o'clock at the Elks Club, a joint meeting was held with the Kenosha County Medical Society. Dr. C. H. Warfield, assistant clinical professor of medicine, Loyola University School of Medicine, Chicago, was the speaker of the evening and had for his subject, "Bone Tumors."

A new motion picture on "Diagnosis of Urologic Conditions" was presented by the medical department of the Winthrop Chemical Company.

The Saturday program began with a business meeting which was followed by a round-table discussion, with Dr. J. E. Habbe, Milwaukee, as chairman.

From nine to eleven-thirty in the morning, the following papers were presented:

"Multiple Lesions of the Alimentary Tract" by Drs. S. A. Morton, and H. W. Hefke, both of Milwaukee.

"Gastro-Intestinal Case Report" by Dr. L. V. Littig, Madison.

"Ascites Complicating Hyperthyroidism" by Dr. C. H. Christensen, Racine.

"Massive Atelectasis (in case of pulmonary tuberculosis) by Dr. James A. Evans, La Crosse.

"Rupture of Trachea with Emphysema" by Dr. W. T. Clark, Janesville.

Case Report by Dr. J. E. Habbe, Milwaukee.

"Sphenoiditis" by Dr. William Fletcher, Salem.

"Fungus Infection of the Chest" by Dr. I. E. Bowing, Kenosha.

"Sprengel's Deformity of the Scapula" by Dr. Theodore Sokow, Kenosha.
"Multiple Myeloma" by Dr. F. W. Mackoy, Milwaukee.
"Perthes' Disease" by Dr. R. P. Potter, Marshfield.
"Three Interesting Intravenous Urograms" by Dr. R. L. Troup, Green Bay.
"Osteolytic Lesions of the Femur" by Dr. J. J. Collins, Racine.
"Osteogenic Sarcoma of Rib."
"Miliary Tuberculosis" by Dr. F. H. Kuegle, Janesville.
"Case of Lung Pathology" by Dr. J. Newton Sisk, Madison.

Officers for the year chosen at the meeting are the following:

Chairman: Dr. H. W. Hefke, 208 E. Wisconsin Ave., Milwaukee.
Vice-Chairman: Dr. R. P. Potter, Marshfield.
Secy–Treas.: Dr. R. F. Wilson, Beloit.

Dr. J. C. Baird, 401 S. Barstow St., Eau Claire, was elected to the executive committee for a period of three years.

UNIVERSITY OF WISCONSIN

A meeting of the University of Wisconsin Medical Society was held Tuesday evening, June second. The following program was presented:

"Relation of the Nasal and Cranial Cavities" by Dr. O. A. Mortenson of the Department of Anatomy.
"Secretion of Ammonia by the Intestine" by Dr. R. C. Herrin of the Department of Physiology.
"Tissue Gas Studies in Respiratory and Circulatory Disease" by Dr. M. H. Seevers of the Department of Pharmacology.
"Studies on the Relationship of the Hypophysis to Hematopoiesis by Dr. O. O. Meyer, Department of Internal Medicine.
"Antigenic Complex of B. Typhosus" by Dr. W. D. Stovall, State Laboratory of Hygiene.
"Effects of Anesthesia with Ether, Chloroform, Vinyl Ether and Cyclopropane on the Heart, Liver, Kidneys and Other Organs" by Dr. C. H. Bunting, Department of Pathology.

Professor G. W. Keitt of the Department of Plant Pathology, University of Wisconsin, gave an address on "Studies in the Epidemiology and Control of Plant Diseases" before a meeting of the University of Wisconsin Medical Society on Tuesday evening, May 26. The meeting was open to the public.

MILWAUKEE HOSPITAL INTERNS

The first Sifton Memorial Lecture, sponsored by the Milwaukee Hospital Interns' Association, was held on May 21. The session was opened by Dr. Hobart W. Johnson, president of the Interns' Association, who, in turn, introduced Reverend Herman L. Fritschel, superintendent of Milwaukee Hospital.

Reverend Fritschel paid tribute to the fine qualities and extraordinary abilities of Dr. Sifton, reviewing briefly his success as a physician and surgeon and recalling the inspiration which Dr. Sifton's career had been to young physicians.

The speaker of the evening, Dr. William S. Middleton, dean of the Medical School, University of Wisconsin, was then introduced by Reverend Fritschel. Dr. Middleton, also, paid tribute to Dr. Sifton, which left a deep impression on his listeners. The subject of Dr. Middleton's address was "The Tools With Which We Work."

News Items and Personals

At the close of the present academic year, Dr. E. P. Lyon, dean of the Medical School, retired from active service at the University of Minnesota. During his administration, covering a period of twenty-three years, the Medical School has exhibited steady and continued growth. As a fitting tribute to his stimulating leadership, the alumni and faculty of the Medical School propose to establish in his honor the Elias Potter Lyon Medical Lectureship at the University of Minnesota. The fund for this purpose is to be raised through subscriptions by alumni, faculty, students and friends. Contributions to the Lyon Lectureship fund may be sent to Mr. William T. Middlebrook, Comptroller, University of Minnesota, Minneapolis.

Dr. James W. Tanner has purchased the practice of Dr. Arthur L. Payne of Eau Claire, who is retiring from active practice. Dr. Tanner's practice is limited to eye, ear, nose and throat diseases.

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Through the efforts of Mr. Walter A. Drews, investigator for the State Board of Health, the following were in court recently, charged with practicing medicine without a license:

F. D. Warner, Milwaukee, formerly of Omaha, Nebraska and who maintained offices in Beaver Dam and Milwaukee, was fined $200. Warner advertised his practice as "treating all diseases and cripples."

A. L. Rasey, an electrician, 2367 N. 41st St., Milwaukee, was given a suspended sentence upon pay-

ment of costs. Mr. Drews stated that one of his agents had paid $1 to Rasey for a treatment which consisted of putting the feet into a barrel through which an electric current passed.

Vita Habif, living in a down town hotel in Milwaukee, was arrested for prescribing blood treatment.

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Dr. Charles E. Lyght, director of the department of student health and professor of clinical medicine at the University of Wisconsin, has accepted the position of professor of student health and chairman of the division of student health, hygiene, and physical education at Carleton College, Northfield, Minnesota. Dr. Lyght has been with the Department of Student Health in Madison since 1927. He begins his new duties at Carleton College at the opening of the school year in September.

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Dr. Eugene S. Knox of Green Bay has just returned from Vienna, Austria. While there he took a three months' course in surgery and diagnosis. On his return trip home he visited in Italy, Switzerland, France, Germany, and Ireland.

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Drs. O. S. Blum and L. L. Weissmiller of Albany have announced their partnership and have moved into offices in the local bank building.

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Dr. Carl N. Neupert, Janesville, has accepted a position as supervisor of public health service under Dr. C. A. Harper, state health officer. The new position was created by expansion of the State Board of Health under the social security plan for Wisconsin. Dr. Neupert is to work on a special assignment to contact county societies in an effort to further the program of tuberculin testing, reducing goiter incidence and expanding the diphtheria prevention and smallpox vaccination programs among all school children.

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The Outagamie County Medical Society broadcasts health talks over Station WTAQ, Appleton, each Tuesday at 6:15 p. m. The talks are given by members of the Society and the following are the subjects which were discussed during June: "Diseases of the Gums" which was presented by a member of the Outagamie County Dental Society; "Getting Ready to Marry"; "Healthful Hobbies"; "Hurry and Health," and "Management of the Expectant Mother."

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Two members of the Waukesha County Medical Society, who have been members of that Society since its formation and who have completed fifty years of practice, were honored by their County Society at a dinner at the Waukesha Spa on June third. They are Drs. A. J. Hodgson and J. B. Noble of Waukesha. Tributes were paid to these physicians by Dr. R. E. Davies and Dr. F. J. Woodhead of Waukesha. Dr. A. W. Rogers, councilor of the District, was also present and gave a short address.

DRAMA OF "THE GUARDIANS OF YOUR HEALTH"

Each Tuesday, Wednesday and Thursday the State Medical Society presents "The Guardians of Your Health" over the state-owned radio station WHA, Madison (940). These health messages are broadcast at 9:00 a. m.

The schedule for this month:

June 30—Man's Fight to Live—Rabies
July 1—Man's Fight to Live—Yellow Fever
July 2—Waging War on Polio
July 7—Man's Fight to Live—Diphtheria
July 8—Man's Fight to Live—Typhoid
July 9—First Aid
July 14—The Story of Sue—Mothers will Worry
July 15—The Story of Sue—Father is Skeptical
July 16—McDowell's Contribution to Women
July 21—The Story of Sue—Girls, Frocks, and Tears
July 22—The Story of Sue—Let the Doctor Decide
July 23—Your Skin is Your Refrigerator
July 28—Family History—(Sue)
July 29—Father Puts His Foot Down (Sue)
July 30—Our Parasite, the Bedbug
Aug. 4—Rest (Sue)
Aug. 5—A New Chapter—A Closed Book
Aug. 6—Questions and Answers

Dr. Hodgson, who founded the Waukesha Spa more than twenty years ago, was born in the year 1858 and has been retired from active practice for the past fifteen years.

Dr. Noble also was born in the year 1858 and came to Waukesha to open an office August 1, 1899, after having previously practiced at Windom and Tower, Minn. For the past twenty-five years, Dr. Noble has been the school physician at the State Industrial School.

The arrangements were in charge of Dr. Frank L. Grover, Hartland, president of the Waukesha County Medical Society.

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Dr. and Mrs. W. C. Frenzel of Wausau returned the last week in May after spending eight weeks in Europe, six of which were spent at the University of Vienna.

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Inaugurating the educational program of The Rogers Memorial Sanitarium, Oconomowoc, an open meeting was held at the Milwaukee Academy of Medicine, Milwaukee, on Thursday evening, June 4. The speaker was Mr. Clifford W. Beers, executive secretary of The National Committee for Mental Hygiene, and author of the book, "The Mind That Found Itself."

Over four hundred persons attended the lecture. It is the intention of the board of trustees of the Sanitarium to bring outstanding men, familiar with psychiatric problems, to speak publicly in an endeavor to stimulate the mental hygiene movement in the prevention and treatment of mental diseases.

BIRTHS

A daughter to Dr. and Mrs. H. S. Schumacher, Milwaukee, on April 28.

A daughter to Dr. and Mrs. A. H. Lahmann, Milwaukee, on May 13.

MARRIAGES

Dr. E. R. Muntz, formerly of Janesville, and since the first of July an instructor in pathology at the University of Wisconsin Medical School, was married on June first to Miss Oliva Lindert of Elgin, Illinois.

Dr. Nelson A. Bonner, Manitowoc, and Miss Norma Kempfert, also of Manitowoc, on June 6.

DEATHS

Dr. A. C. Dana, Fond du Lac, died on May 25 at St. Agnes' Hospital, Fond du Lac. He had been in ill health for eight years.

Born July 11, 1886, in Fond du Lac, he received his medical education at Milwaukee Medical College, graduating in 1911. Following internship, he opened an office in Fond du Lac. During the World War, he enlisted in the medical corps and was stationed at Fort Benjamin Harrison, Indiana, and Camp Grant, Ill.

Survivors are his widow, five brothers and one sister.

Dr. Theodore G. Brehm, Racine, died on November 4, 1935, of chronic myocarditis and nephritis.

Dr. Brehm was born in the year 1856 and was a graduate of Northwestern University Medical School in 1891. He was a former member of the State Board of Health.

Dr. Brehm was a member of the Racine County Medical Society, the State Medical Society, and the American Medical Association.

Dr. F. P. Dohearty, Appleton, died on June 19 after an illness of six weeks.

A resident of Appleton since 1907, Dr. Dohearty was born July 11, 1871, in Peterbow, Ontario. At the age of three months he moved with his family to Sturgeon Bay. He was a graduate of Northwestern University Medical School in the year 1897, following which he opened an office at Crivitz, where he stayed for two years. From 1899 to 1907 he practiced at Butternut, and in 1907, he moved to Appleton.

Dr. Dohearty had served the city as health commissioner for about fifteen years and county physician for Outagamie County and the Outagamie County Asylum for twenty-five years.

He was a member of the Outagamie County Medical Society, the State Medical Society, and the American Medical Association.

Survivors are his widow; two daughters, Ann, Chicago and Mary Jane, Appleton; two sons, Francis and John of Appleton; one brother, Dr. W. H. Dohearty, Whitefish Bay; two sisters, Mrs. Joseph De Kyser, Birchwood, and Mrs. William Histon of Egg Harbor.

Dr. Frank D. Fleury, Omro, died on June 16 at his home. He had retired from active practice just recently because of ill health.

Born on October 30, 1875 at Janestown, Kansas, he was educated in the Concordia, Kansas, high school and lived on his parent's farm until he entered the Spanish–American War, serving for three years in the Philippines. On his return from service he entered Ensworth Medical College of St. Joseph, Missouri, from which he graduated in 1908.

Before coming to Wisconsin, Dr. Fleury practiced in the states of Colorado and Wyoming and was also licensed to practice in California. He came to Omro twenty-one years ago and had lived there continuously since that time.

Dr. Fleury was a member of the Winnebago County Medical Society, the State Medical Society, and the American Medical Association.

He was married in 1911 to Mrs. Grace Winchester Stearns, who survives him.

Dr. George H. Jamieson, formerly of Racine, died on June 15 at the home of his mother-in-law in Oshkosh following an illness of more than two years.

He was born on September 22, 1899, at Lone Rock, Wisconsin, and was the son of Dr. and Mrs. George Jamieson. He attended La Crosse State Teachers' College and the University of Wisconsin. He completed his medical education at Marquette University School of Medicine in 1927 and had been engaged in practice with his brother, Dr. R. D. Jamieson at Racine up to the time of his illness.

He was a member of the Racine County Medical Society, the State Medical Society, and the American Medical Association.

Surviving are his widow and one child; his mother, Mrs. Addie Jamieson, Lone Rock, and two sisters, Miss Mabelle, Lone Rock, and Mrs. Sidney Hanson of Richland Center, and one brother, Dr. R. D. Jamieson of Racine.

Dr. John F. Riordan, Kenosha, died on June 14 at St. Catherine's Hospital, Kenosha, after a month's illness.

Born in Earlington, Ky., April 5, 1878, he received his early schooling at Henderson, Ky., and Evansville, Ind. Completing his university work at Vanderbilt University, he then entered Northwestern University Medical School from which he graduated in 1905. After internship in Chicago, he moved to

Berlin, Wis., to engage in general practice. He founded the Berlin Clinic, continuing actively in charge until his removal to Kenosha in 1928 when he retired from general practice to specialize in eye, ear and throat diseases.

He was a member of the Kenosha County Medical Society, the State Medical Society, and the American Medical Association.

He is survived by his widow and four children, Howard, Victor, Elaine and John.

Dr. Henry S. Wahl, Wausau, died on June 12 at the University of Kansas hospital, Kansas City, Kansas, where he had been a patient for two months.

Dr. Wahl was born August 19, 1860, in Stratford, Ontario, and was a graduate of Northwestern University Medical School in 1884. Following several years of practice in Minnesota City and Winona, Minn., he moved to Stratford, Wisconsin, in 1895. In 1913, he came to Wausau where he remained until his retirement.

Dr. Wahl was a member of the Marathon County Medical Society, the State Medical Society, and the American Medical Association.

He is survived by his widow and two sons, Dr. R. Roswell Wahl, Dean of the University of Kansas School of Medicine, Kansas City, and Dr. Leonard P. Wahl, dentist, of Wausau.

Dr. L. H. Hayman, a former practitioner at Boscobel, died at his home in Pasadena, California, at the age of ninety. He had been in partnership with his brother, Dr. Charles S. Hayman of Boscobel, and in 1911 moved to California.

SOCIETY RECORDS

New Members

George Klinger, Delavan.

E. E. Coerper, Fredonia.

Arthur J. Rawlins, Portage.

H. W. Wirka, Wisconsin General Hospital, Madison.

H. J. Dvorak, 4718 W. Lisbon Ave., Milwaukee.

John D. Owen, 425 E. Wisconsin Ave., Milwaukee.

S. F. Wasielewski, 943 So. 28th St., Wauwatosa.

Earl W. Martens, Wauwatosa.

Changes in Address

H. M. Aitkin, Madison, to Ogdensburg, New Jersey.

James A. Ballard, Milwaukee, to 1404 Lombard Court, Wauwatosa.

Eugene C. Smith, La Crosse, to 811 Thomas St., Flint, Michigan.

George H. Jamieson, Racine, to 121 Hazel St., Oshkosh.

M. O. Boudry, Fond du Lac, to 122 South Main St., Waupaca.

R. E. Pleune, Stevens Point, to Michigan Dept. of Health, Lansing, Michigan.

F. J. Baylen, Stevens Point, to Adell, Wis.

D. S. Smith, La Crosse to 811 Thomson St., Flint, Mich.

A. F. Slaney, Hilbert to Oconto.

International Cancer Institute Announced By University in Connection With Annual Meeting of State Medical Society at Madison

A CANCER Institute under the joint auspices of the University of Wisconsin Medical School and Wisconsin Alumni Research Foundation, which will bring to Wisconsin specialists of international reputation, has been announced by Dean W. S. Middleton, of the University of Wisconsin Medical School for September 7 and 8. On September 9 the Cancer Institute and the State Medical Society of Wisconsin will join for the first day of the Ninety-fifth Anniversary Meeting of the Wisconsin Society. The Cancer Institute on Monday and Tuesday, September 7 and 8, will be conducted in the Service Memorial Institute on the University campus. On Wednesday, September 9, outstanding speakers for the Institute will present the first day's program for the State Medical Society of Wisconsin in the Memorial Union Building.

Final plans for the Society meeting are substantially complete according to announcement late in June by Dr. Gunnar Gundersen, La Crosse, chairman of the Committee on Scientific Work of the State Society. In addition to the opening day devoted to cancer, the regular program will continue with general sessions on Thursday morning,

round table luncheons on Thursday noon, section meetings Thursday afternoon, the annual dinner Thursday evening; two symposia on Friday morning, alumni luncheons on Friday noon, and concluding general sessions Friday afternoon.

While complete programs for both the Cancer Institute and the Ninety-fifth Anniversary Meeting of the State Medical Society will be published in the August issue of the Journal, now completed arrangements for both programs indicate that the combined meetings will attract to Madison the largest attendance in the history of the Society. In addition it is anticipated that large numbers of guests will come from surrounding states.

CANCER PROGRAM

The Cancer Institute will open on Monday, September 7, in a session devoted to the subject of Cancer and Inheritance. Monday afternoon the Institute will resolve into round tables on the subjects of Diagnostic Problems and the Recognition of Early Cancer, Genetics, and the Ideology of Cancer.

On Tuesday, September 8, the morning and afternoon will be devoted to the general program with late afternoon round tables on Surgery and Irradiation in the Treatment of Cancer, Cytology of Malignant Neoplasms, and Filterable Viruses and Cancer. On Tuesday evening Dr. C. C. Little, secretary of the American Society for the Control of Cancer, New York City, will present a public program at the Memorial Union on the subject of Cancer.

The joint meeting of the Cancer Institute and the State Medical Society of Wisconsin will open at the Memorial Union on Wednesday, September 9, with general sessions both morning and afternoon. The Cancer Institute and State Society session on cancer will include presentations by Prof. Henry Coutard, chief of the Department of X-Ray Therapy for Cancer of the Radium Institute, University of Paris, France; Dr. Leiv Kreyberg, University of Oslo, Norway; Dr. Madge T. Macklin, University of Western Ontario, Canada; Dr. Emil Novak, Johns Hopkins Medical School; Dr. S. P. Reimann, University of Pennsylvania; Dr. J. B. Murphy, Rockefeller Institute for Medical Research; Dr. Warren H. Lewis, Johns Hopkins University; Dr. Gioacchino Failla, of Memorial Hospital, New York City; Dr. H. B. Andervont, Harvard School of Public Health; Dr. Edgar Allen, dean of the University of Missouri, School of Medicine; and Dr. James Ewing, Cornell University Medical College and Memorial Hospital for the Treatment of Cancer in New York City.

GENERAL SESSIONS

Distinguished guests for sessions of the State Medical Society of Wisconsin on Thursday and Friday, September 10 and 11, include Drs. Meredith F. Campbell, New York City; John D. Camp, Rochester; Richard W. TeLinde, Baltimore; Morris Fishbein, editor, Journal of The American Medical Association, Chicago; W. J. Mayo, Rochester; K. K. Nygaard, Rochester; Harry Culver, Chicago; Avery D. Prangen, Rochester; Francis L. Lederer, Chicago; Jos. L. Miller, Chicago; John H. Skavlem, Cincinnati; Nathan A. Womack, St. Louis; Carl Semb, Oslo, Norway; John Alexander, Ann Arbor; M. Herbert Barker, Chicago; W. D. Coventry, Duluth; King G. Woodward, Rockford; James E. M. Thomson, Lincoln, Nebraska; James A. Johnson, Minneapolis; Arthur F. Bratrud, Minneapolis; and M. N. Smith-Peterson, of Boston, Mass.

THURSDAY–FRIDAY

General sessions of the Society will be held throughout Thursday morning, September 10. On Thursday noon, round-table luncheons will be held to permit of discussion groups not exceeding twenty in number for subjects including the present status of hernial repair, communicable diseases, and pediatrics, bedside medicine and useful drugs, recent advances in clinical obstetrics, tuberculosis, fractures of the neck of the femur, the allergic nose and allied conditions, irritable colon, migraine, present status of bladder-neck obstruction, recent developments in gastro-intestinal radiology and fractures of the ankle.

On Thursday afternoon, there will be section meetings in the fields of obstetrics and gynecology, surgery, urology, eye, ear, nose and throat, and medicine.

Members—1936 House of Delegates

County	*Delegate*	*Alternate*
Ashland–Bayfield–Iron	R. O. Grigsby, Ashland	C. W. Lockhart, Mellen
Barron–Washburn–Sawyer–Burnett	A. S. White, Rice Lake	H. H. Schlomovitz, Barron
Brown–Kewaunee–Door	P. R. Minahan, Green Bay	O. A. Stiennon, Green Bay
Calumet	J. W. Goggins, Chilton	N. J. Knauf, Chilton
Chippewa	W. H. Fortner, Bloomer	A. W. Overgard, Stanley
Clark	H. H. Christofferson, Colby	M. C. Rosekrans, Neillsville
Columbia	H. M. Caldwell, Columbus	W. H. Costello, Randolph
Crawford	C. A. Armstrong, Prairie du Chien	E. T. Ackerman, Gays Mills
Dane	H. E. Marsh, Madison	W. T. Lindsay, Madison
	E. F. Schneiders, Madison	L. V. Sprague, Madison
	L. W. Peterson, Sun Prairie	Louis Fauerbach, Madison
Dodge		
Douglas	H. J. Orchard, Superior	C. W. Giesen, Superior
Eau Claire–Dunn–Pepin	J. C. Baird, Eau Claire	Oscar Knutson, Osseo
Fond du Lac	D. J. Twohig, Fond du Lac	C. W. Leonard, Fond du Lac
Forest		
Grant	E. C. Howell, Fennimore	J. E. Donnell, Cuba City
Green	J. F. Mauermann, Monroe	W. B. Bear, Monroe
Green Lake–Waushara–Adams	A. J. Wiesender, Berlin	G. E. Baldwin, Green Lake
Iowa	S. R. Ridley, Mineral Point	H. M. Walker, Dodgeville
Jefferson	H. P. Bowen, Watertown	W. S. Waite, Watertown
Juneau	F. H. Ferguson, Elroy	W. T. O'Brien, Mauston
Kenosha	A. F. Ruffolo, Kenosha	G. F. Adams, Kenosha
La Crosse	N. P. Anderson, La Crosse	Gunnar Gundersen, La Crosse
Lafayette	W. B. Williams, Argyle	Suzanne Orton, Darlington
Langlade	J. C. Wright, Antigo	W. P. Curran, Antigo
Lincoln	R. J. Henderson, Tomahawk	F. C. Lane, Merrill
Manitowoc	R. W. Hammond, Manitowoc	A. P. Zlatnik, Two Rivers
Marathon	S. M. B. Smith, Wausau	E. E. Flemming, Wausau
Marinette–Florence	H. L. Jorgenson, Marinette	T. J. Redelings, Marinette
Milwaukee	Jos. Lettenberger	F. E. Drew
	F. D. Murphy	W. V. Nelson
	J. C. Sargent	R. E. Fitzgerald
	H. W. Powers	H. C. Schumm
	H. J. Gramling	A. R. Langjahr
	G. W. Neilson	Edward Jackson
	Norbert Enzer	W. F. Grotjan
	L. W. Hipke	E. J. Carey
	R. P. Sproule	C. W. Eberbach
	H. E. Webb	S. M. Markson
	J. W. Smith	Irwin Schulz
	W. A. Ryan	D. D. Mehigan
	F. W. Mackoy	B. P. Churchill
Monroe	G. C. Devine, Ontario	S. D. Beebe, Sparta
Oconto	H. F. Ohswaldt, Oconto Falls	J. F. Rose, Lena
Oneida–Vilas	W. S. Bump, Rhinelander	O. R. McMurry, Eagle River
Outagamie	A. E. Rector, Appleton	Albert Leigh, Kaukauna
Pierce–St. Croix	A. E. McMahon, Glenwood City	O. H. Epley, New Richmond
Polk	R. G. Arveson, Frederic	A. N. Nelson, Clear Lake
Portage	E. E. Kidder, Stevens Point	H. P. Benn, Stevens Point
Price–Taylor	J. D. Leahy, Park Falls	L. E. Nystrum, Medford
Racine	H. B. Keland, Racine	T. C. Hemmingsen, Racine
Richland	B. I. Pippin, Richland Center	George Parke, Viola
Rock	P. A. Fox, Beloit*	W. J. Allen, Beloit
Rusk	W. F. O'Connor, Ladysmith	L. M. Lundmark, Ladysmith
Sauk	E. D. Stanton, Reedsburg	Leo A. Hudson, Sauk City
Shawano	A. J. Gates, Tigerton	C. E. Stubenvoll, Shawano
Sheboygan	G. J. Hildebrand, Sheboygan	O. T. Gunther, Sheboygan
Trempealeau–Jackson–Buffalo	J. P. Reinhardt, Fountain City	R. L. MacCornack, Whitehall
Vernon		
Walworth	D. H. Jeffers, Lake Geneva	Walter Mauthe, Whitewater
Washington–Ozaukee	J. G. Hoffmann, Hartford	H. M. Lynch, West Bend
Waukesha	H. A. Peters, Oconomowoc	H. T. Barnes, Delafield
Waupaca	A. M. Christofferson, Waupaca	R. K. Irvine, Manawa
Winnebago	R. B. Rogers, Menasha	J. M. Conley, Oshkosh
Wood	F. X. Pomainville, Wisconsin Rapids	K. H. Doege, Marshfield

* Deceased.

Dr. Morris Fishbein, editor of the Journal of the American Medical Association, will be speaker of the evening at the annual dinner at the Hotel Loraine on Thursday evening.

On Friday morning, two hours will be devoted to symposia on the chest and on nephritis followed by a general session to noon.

The alumni luncheons will be held Friday afternoon followed by the concluding general session ending at four o'clock.

HOUSE OF DELEGATES

The opening session of the House of Delegates will be held on Tuesday evening, September 8, preceded by a meeting of the Council on Tuesday afternoon. The second session of the House of Delegates will be held early Wednesday evening and will be followed by a guest speaker in the field of medical economics before a smoker meeting for all members. The concluding session of the House of Delegates will be held early Thursday morning.

A complete program for the Cancer Institute, the three days' session of the State Medical Society, the Auxiliary and legislative bodies of the Society, together with reports of officers and committees, will appear in the August issue of the Journal.

Three New Obstetric-Pediatric Postgraduate Circuits Open in July

WITH the completion of the first two circuits of six weeks' postgraduate education in obstetrics and pediatrics, three new circuits have been announced for the period of July 20 to August 28. These circuits are made possible by Federal funds under the Social Security Act made available to the Bureau of Maternal and Child Welfare of the State Board of Health.

Under the postgraduate education plan, the afternoon and evening of the same day of each week for six weeks are devoted to the educational periods. Afternoon sessions begin at 4:00 p.m., and the evening session at 7:00 p.m. The new circuits will be as follows:

CIRCUIT THREE—JULY 20–AUG. 28

Otto H. Schwarz, M. D., Washington University, St. Louis, Missouri. F. R. Janney, M. D., Marquette University Medical School.

Balsam Lake—Legion Hall—Monday, July 20, 27, August 3, 10, 17, and 24; Burnett and Polk Counties.

Hudson—Council Chamber, City Hall—Tuesday, July 21, 28, August 4, 11, 18. and 25; Pierce and St. Croix Counties.

Menomonie—Stout Institute—Wednesday, July 22, 29, August 5, 12, 19, and 26; Dunn and Pepin Counties.

Eau Claire—Assembly Room, City Hall—Thursday, July 23, 30, August 6, 13, 20, and 27; Eau Claire and southern Chippewa Counties.

Ladysmith—Country Club—Friday, July 24, 31, August 7, 14, 21, and 28; Rusk, eastern Barron, and northern Chippewa Counties.

CIRCUIT FOUR—JULY 27–SEPT. 4

Fred L. Adair, M. D., University of Chicago, Chicago, Illinois. Horace K. Tenney, M. D., University of Wisconsin Medical School.

Marinette—Hotel Marinette—Monday, July 27, August 3, 10, 17, 24, and 31; Florence and Marinette Counties.

Shawano—Municipal Hospital—Tuesday, July 28, August 4, 11, 18, 25, and September 1, Oconto and Shawano Counties.

Fond du Lac—St. Agnes Hospital—Wednesday, July 29, August 5, 12, 19, and 26 and September 2; Fond du Lac and Green Lake Counties.

Wausau—Afternoon sessions—St. Mary's Hospital; Evening sessions—Wausau Memorial Hospital; Thursday, July 30, August 6, 13, 20, 27 and September 3; Lincoln, Marathon, and Taylor Counties.

Antigo—Elks Club—Friday, July 31, August 7, 14, 21, 28, and September 4; Langlade County.

CIRCUIT FIVE—JULY 27–SEPT. 4

John W. Harris, M. D., University of Wisconsin Medical School. J. E. Gonce, Jr., M. D., University of Wisconsin Medical School.

Park Falls—Council Chamber, City Hall—Monday, July 27, August 3, 10, 17, 24, and 31; Price, southern Ashland, and southern Iron Counties.

Hayward—Indian Hospital—Tuesday, July 28, August 4, 11, 18, 25, and September 1; Sawyer and Washburn Counties.

Superior—Room 202, Court House—Wednesday, July 29, August 5, 12, 19, 26, and September 2; Douglas County.

Ashland—July 30, August 6, and 13—Ashland General Hospital; August 20, 27, and September 3—St. Joseph's Hospital; northern Ashland, Bayfield, and northern Iron Counties.

Rhinelander—Council Chamber, City Hall—Friday, July 31, August 7, 14, 21, 28, and September 4; Forest, northern Lincoln, Oneida, and Vilas Counties.

Circuit One served Adams, Buffalo, Clark, Jackson, Juneau, La Crosse, southwestern Marathon, Monroe, Portage, Trempealeau, Vernon, Waushara, and Wood Counties. The classes in this circuit were conducted by Dr. John W. Harris, and Dr. J. E. Gonce, Jr., of the University of Wisconsin Medical School. Circuit Two served the following counties: Brown, Calumet, Door, Kewaunee, Manitowoc, Outagamie, Waupaca, and Winnebago Counties. The classes in this circuit were conducted by Dr. C. H. Davis and associates, and Dr. M. G. Peterman of the Marquette University Medical School.

In the territory covered by Circuit One there were 213 physicians in active practice which did not include twenty-five specialists in ophthalmology, otology, laryngology, rhinology, urology, radiology, orthopedics, tuberculosis, neurology, and psychiatry. Fifty-eight and six-tenths per cent of the practising physicians enrolled for the course, but 65.7% of the general practitioners attended one or more sessions of the course. Forty-nine and four-tenths per cent of the physicians attending this course were from towns of under 2,500 population.

In the territory covered by Circuit Two there were 238 physicians in active practice, not including fifty-five specialists among this number. Sixty-six and eight-tenths per cent of the general practitioners enrolled for the course, but 60.9% of them attended one session or more. In this circuit 30.6% of the physicians attending the courses were from towns of 2,500 population or less.

Governor La Follette Announces Appointments to Board of Medical Examiners

THREE new members and one reappointment on the State Board of Medical Examiners for terms ending in 1939 were announced late in June by Governor Philip F. La Follette. Dr. Henry J. Gramling, Milwaukee, was reappointed to the Board to succeed himself. New members appointed to the Board were Dr. Henry O. McMahon, Milwaukee, to succeed Dr. John E. Guy, deceased; Dr. Adam J. Gates, Tigerton, to succeed Dr. John R. Venning, Fort Atkinson, and Dr. C. H. Cremer of Cashton to succeed Dr. Robert E. Flynn, La Crosse.

Hold-over members of the Board are Dr. C. W. Giesen of Superior; E. C. Murphy, D. O., Eau Claire; Dr. A. G. Koehler, Oshkosh, and Dr. Bart E. McGonigle, Ableman.

National Board Examinations at Wisconsin

Examinations for Part III of the National Board of Medical Examiners were held at the University of Wisconsin on June 24–26 under the direction of Dr. J. Gurney Taylor, chief examiner, and Dr. H. T. Kristjanson, secretary of the National Board. Those conducting examinations in clinical medicine included Drs. W. S. Middleton, F. D. Murphy, and J. E. Gonce, Jr.

Examinations in The Application of Medicine were conducted by Drs. W. J. Meek, J. C. Bock, A. L. Tatum, and C. H. Bunting.

Clinical surgery and operative surgery: Drs. F. Gregory Connell and C. W. Eberbach.

Applied anatomy by Dr. Eben J. Carey; eye, ear, nose and throat: Dr. W. E. Grove; dermatology: Dr. H. R. Foerster; radiology: Dr. S. A. Morton.

Obstetrics and gynecology: Dr. J. W. Harris; public health and applied bacteriology: Drs. W. D. Stovall and P. F. Clark.

MEDICAL ECONOMICS

Medical Care for the Indigent—An Editorial

THERE follow two articles with tables relating to sickness care of the indigent under the two years of the Wisconsin Emergency Relief Administration. The first of these articles is written by the medical advisor to the State Administrator who views the problem with the eyes of a physician—official of the State government. The second is a departmental report and study made under the authorization of the State Relief Administrator. Certain footnotes by the editor have been appended to suggest one or two possible misinterpretations and to raise other questions from a wider standpoint.

The thoughtful reader, however, who is also acquainted with the position that medicine had taken long before the emergency reached its height, will be interested to note how the viewpoints of a state administration based upon actual experience so largely follow the early recommendations of the State Medical Society of Wisconsin. In 1930 and 1931, the Society, through its special committee on the distribution of medical service, made a most careful study of this question and related ones. Certain of its findings and recommendations in this field, with the present views of state administrators, follow:

1. The Society disapproved a system of medical care for the indigent which provided but a single practitioner for the reason that such a system "is not conducive to secure a proper public service."

That view is hereinafter expressed strongly by state relief officials.

2. The Society enunciated the principle that the care of the indigent is a community obligation, that the physician should have reasonable compensation therefor, and that the charitable work, that will always characterize the profession of medicine, should be continued to that class of individuals who is endeavoring, under great handicaps, to maintain its independent financial status.

This view has now the full support of state relief officials.

3. The Society declared that free choice of physician was essential to any reasonable and adequate service for the indigent.

This procedure is urged in the public interest by the State Relief Administration.

4. Physicians declared that political favors have no part in the problem of the relief of human distress.

This is the view of relief administrators.

5. The Society has long contended that it was an economy to give proper medical attention to the indigent and that thereby much greater future costs, as well as distress, could be avoided.

This is the view of the State Relief Administration.

6. Medicine declared that any system of providing medical service wherein a layman was set up to be the final judge on medical needs of the patient could only result in flat failure from the viewpoint of the rendition of a scientific service.

This position is supported in the report of the state department.

7. The Society offered the cooperation of its component county medical societies as a means of passing upon the reasonableness of services and charges, and stated that such cooperation would protect both the medical needs of the indigent and the pocketbook of the community.

After two years of experience the State Relief Administration now declares that this system of auditing-consultation committees in Wisconsin by and large has worked very well.

THE FUTURE

We understand that Governor La Follette's Citizens' Committee on Public Welfare now has embarked upon a study of social needs. A revision of Elizabethan laws governing

care of the indigent is mandatory, according to Chief Justice Rosenberry, Chairman of the Committee.

The experience of the Wisconsin Emergency Relief Administration in ministering to the physical needs of the indigent during the two years of 1934 and 1935 will be, we know, of great value to that Committee in suggesting how future care best may be administered. Wisconsin is returning to an unaided county and unit system and there is already evident a tendency among local officials to discharge their mandatory duties under the law in any way which will be immediately cheapest to the taxpayer. That such methods ultimately will be the most expensive to the public that man can devise either is not sensed or, if sensed, forgotten so long as monthly costs can be drastically lowered.

We are not unsympathetic with these local officials and recognize the uncomfortable position in which some find themselves. This editorial is written not so much in hopes that all local systems will be maintained at high standards, for disintegration of even the defective and very minimal federal standards is already taking place here and there. We are moved to write in hopes that ways and means can be found, out of which the indigent sick will receive, through a farsighted realization of the costs of neglect, reasonably adequate medical attention. To such an effort we know that our State Medical Society of Wisconsin pledges its every assistance thereby to fulfill its highest humanitarian aims.

Experience is our best teacher. Relief officials, on the basis of two years' trial, declare that medicine was right in its position on this subject. Let us now solve the problem of how the right methods can be applied in the future.

Medical Program of the Wisconsin Emergency Relief Administration

By W. T. CLARK, M. D.
Medical Adviser, W. E. R. A., Janesville

PRIOR to the depression, the medical profession had carried willingly and without complaint a large amount of the charity work which society had imposed upon it. In 1932 and 1933 it found that the burden of caring for those unable to pay for medical services was beyond its power longer to carry alone. In fact there was no reason why the physicians of the community, simply because they happened to be in the practice of medicine, should be expected to carry this load of charity which in reality belonged to society as a whole. Negotiations were being carried on throughout the country for payment for medical care, which had not then been generally recognized as a necessity, to be furnished the indigent as was being done with food, clothing, shelter and fuel. The results of such negotiations were a wide variety of agreements, many of which were based upon the employment of a city or county physician, on a salary, who took care of all those unable to pay and with the rapidly mounting number of such people the salary proved inadequate for the amount of work done and the volume was often so great that the physician could not do the work required of him. To such a plan there were two main objections: people felt some resentment in having to go to a physician whom they did not know or whom they would not have chosen if they were able to pay for the services required. Secondly, in many instances the physician had no personal interest in the patients as such and did not give them the same type of care that he would his private patients, one reason being that the flat salary being received was wholly inadequate for the enormous amount of work he was compelled to do. Such a condition, of course, is not conducive to the rendition of the highest type of medical service.

Many plans similar to the above were put in operation prior to the rather tardy recognition by the Federal Government in its FERA Bulletin Number Seven, issued in June, 1933, relating to the medical and allied

professions, in which it recommended that medical care was one of the essentials that should be furnished along with the other necessities of life. This Bulletin was a rather broad statement of policy, the fundamental provisions of which recognized that free choice of physician should be accorded those on relief. The appointment of a local medical advisory committee was suggested whose primary duties would be to audit the bills for medical services and to consult on such cases as would apparently require the expenditure of a considerable amount of money. Both of these provisions have proved fundamentally sound and of great value, when properly carried out, in the conservation of funds for medical relief. There was another provision which denied reimbursement from federal funds for any care in a hospital. This was probably based on a fear of overhospitalization and consequent excessive bills for this service. It also may have been a continuation of traditional distinction between outdoor relief and institutional care. In actual practice, when consultation has been held by the medical advisory committee, these costs have been kept within reasonable limits, thus dispelling the apprehension of excessive hospital costs. Basically, of course, there was no medical reason for placing a line of cleavage in the medical set-up, and if for the sake of argument, we grant that a line of cleavage might be advisable, it was wrongly placed as most of the people, requiring home and office care provided for in Bulletin Number Seven by reimbursement from federal funds, were not nearly so sick as those for whom hospital care was so essential.

As previously stated, FERA Bulletin Number Seven was a broad statement of policy only, which left to the individual states the responsibility of accepting its provisions and putting both into effect by some more specific and definite rulings, with which most states complied by issuing a bulletin supplemental thereto, or establishing a state-wide plan which satisfied its essentials. This naturally resulted in a wide variety of solutions to the problem by the several states, some of which worked satisfactorily and others not at all.

WISCONSIN PROGRAM

In the State of Wisconsin a supplemental bulletin was drawn up putting into effect the essentials provided by FERA Bulletin Number Seven. This was done at the request of Alfred W. Briggs, director of the Wisconsin Emergency Relief Administration, after the appointment of a medical adviser (in the latter part of March, 1934) who drew up the details of this plan and submitted them to the Council of the State Medical Society, inasmuch as one of the States had the experience of drawing up a plan without submission to the State Medical Society for approval and after the plan was completed and issued, the State Medical Society rejected it. The repetition of such a fiasco was not desired in this State. The State Medical Society Advisory Committee and the WERA finally approved this plan and it went into effect in August, 1934, in most of the counties of the State and within a short time all relief units were cooperating.

The Supplemental Bulletin made effective the provisions of FERA Bulletin Number Seven providing for free choice of physician and the appointment of local medical advisory committees whose duty it was to audit monthly all bills for medical services and to act as consultants for the relief department as required. The responsibility for proper care was placed upon the individual physician. Upon the local relief department was placed the burden of certifying whether or not the patient or his family was able to pay for necessary medical care. Obstetrical care was made to include at least six pre-natal and three post-natal visits in order that the indigent would be furnished proper supervision in these cases. The only fee fixed in the Bulletin was that of $1.50 for home visits during the day. All other fees were not to exceed 50% of the minimum fee prevailing in the community, as determined by the local medical advisory committee. A standard form was provided for all physicians desiring to accept patients under this program and only those having signed this blank would be compensated from relief funds. The physician agreed to accept the terms of this program and the fees as scheduled in full payment for his services. A standard blank

was also prepared bearing the authorization for medical care upon which the physician also rendered his statement. This bore the confidential diagnosis and such additional information as was essential for the information of the medical advisory committee in auditing bills. Each county medical society was required to appoint the medical advisory committee which was to be approved by the local relief department. The medical relief committee of the county board, together with the county medical advisory committee and the director of the local relief department, was required to submit a schedule of fees which was not to exceed 50% of the minimum fees prevailing in the locality. This fee list was submitted to the WERA office in Madison and if the fees were in line with those in similar localities of the State this schedule was approved and the plan was in effect.

After the issuance of the Supplemental Bulletin the medical adviser held meetings in the different parts of the State at which were represented the medical profession, the local relief department and in some cases the public officials. The plan was explained and questions answered in regard to the method of its employment. This was done in August, 1934. What difficulties arose during the winter of 1934–35 were taken care of by correspondence. In May, 1935, another trip was made throughout the State. In all, four major trips were made and many minor ones. Those localities were visited which were having difficulties in one way or another in the administration of this plan. Most of these difficulties were found to be due to one or both of two things,—the failure of the medical advisory committee or the local relief director to realize the importance of auditing all bills monthly and the necessity of consultation in cases requiring operation or where the medical expense probably would be greater than usual.

The two chief factors contributing to the success of this plan have been the remarkable cooperation shown by the physicians of the State especially by the medical advisory committees whose task was a thankless one yet vitally essential to the success of the plan and, secondly, by the close cooperation from Mr. Briggs and his State Relief Administration as delivered through the field representatives and the local relief departments.

Politics has not influenced the WERA in the supplying of relief, medical or otherwise. The consensus of opinion of those responsible individuals in a position to judge is that medical relief has been administered in the State of Wisconsin in very close compliance with the essential provisions of FERA Bulletin Number Seven. The physicians have received on the average from 5 to 15% above the cost of overhead for authorized cases which is about the same margin on which all others dealing with the relief department have done business.

Now that Federal reimbursement through the States for relief costs has been withdrawn the supervision which the federal government has exercised through Bulletin Number Seven is consequently withdrawn. The financial and administrative responsibility is being returned to the local relief units. As a consequence of this, relief standards probably will be materially reduced because of the stringency of funds and the lack of federal or state jurisdiction and regulation in this field.

In many localities for several months past the tendency to revert, for the reasons above mentioned, to the city and county physician plan has been quite obvious. From this will result, in many instances, inadequate medical care being furnished those still on relief rolls. From the humanitarian standpoint this will be a decided step backward and will eventually result in economic loss as well as a destruction of morale and a further burden to society because preventive medicine will not be practiced under these standards. As a result, many remedial conditions, through neglect, will be allowed to develop into serious diseases which will require a much greater expenditure of money to cure or which will result in permanent disabling of the individuals, so neglected, that they will have become a burden on society for the rest of their lives.

An attempt is being made to estimate the true value of this plan from the results of a questionnaire sent out to those physicians, relief workers, and government officials who

participated in it. This, we fear, may bear the suspicion of partisanship and to offset this a survey is also being made by those familiar with this type of work, from without the State, and who have conducted similar surveys in other states. Their verdict is awaited with a considerable degree of interest by those who have been responsible for this program.

CONCLUSIONS

1. Physicians should be paid for medical care of the indigent which service should be recognized as one of the essentials that must be furnished along with food, clothing and shelter from public funds as provided by the laws of Wisconsin.

2. This charge should be recognized as a legal public responsibility.

3. Free choice of physician should be allowed under supervision of and controlled by an advisory committee. Such committees in the past were composed of physicians who audited the bills for medical care and acted as consultants as required by the relief department.

4. The cost of care in hospitals should be included in this plan.

5. Politics should not be allowed to influence anything having to do with care of the sick.

6. It has been proved that a high degree of cooperation can be maintained between relief officials and the medical profession by a proper division of responsibility and a mutual understanding of the problems involved. In this respect a great step forward has been taken.

7. For economic as well as humanitarian reasons a long view should be taken of this problem and medical care should not be limited to so-called emergencies because by neglect of early, active preventive measures, a large degree of suffering, a vast economic loss as well as a destruction of morale will be entailed which will be out of proportion to the initial cost required to correct or prevent these conditions in the first place.

8. Physicians under this plan, when established, received about the same proportionate remuneration as have other groups supplying the needs of those unfortunate enough to be on relief, in most instances during the recent depression, through no fault of their own.

9. The medical profession and the officials of society duly elected to look after the relief problems of the future should get together and outline some plan for the medical care of those who will remain as society's burden. This can and should be done without undue delay. This problem should be viewed in its proper perspective, considered in a spirit of cooperation by all concerned, and settled with foresight and on a broad basis of human understanding, ever keeping in mind the best interests and equal rights of all concerned, that is, the tax-payer, the patient, the relief department and the physician.

History will undoubtedly give proper place to this transient effort to meet the problems of the troublous time in which it has been in effect.

Medical Relief in Wisconsin, 1934-1935*

DURING 1935, $1,427,280 was expended by local relief agencies in Wisconsin to provide medical[1] care in the homes of families receiving relief. An average of 18,037 cases per month received such care at an average monthly cost of $119,250 or $1.19 for every case receiving relief.

The responsibility placed upon relief agencies by the Wisconsin statutes for providing medical aid to persons in need of and unable otherwise to obtain such care is a recognition of the obligation to prevent suffering as well as to maintain and restore the health of dependent persons.[2] Both as a protection to

* A publication of the Public Welfare Department of Wisconsin, Alfred W. Briggs, Director, April 10, 1936. Revised on June 22, 1936.

Footnotes in letters by Welfare Department.

Footnotes in numerals indicate editor's notes.

[1] The term "medical" as used here means "sickness" in that the cost comprehends more than allowances for physicians.—*Editor's Note.*

[2] See Summary of Wisconsin Poor Relief Laws Affecting Care of the Indigent Sick, 1936, published by State Medical Society of Wisconsin, Madison, and approved by the Attorney General of Wisconsin. Copies upon request.—*Editor's Note.*

the health of the public as a whole, and as a means of rehabilitating persons who might otherwise remain permanently or wholly dependent, adequate medical care represents a sound investment of public funds.

The part played by relief departments in the protection of health has increased during the past few years not only by reason of the vast number of persons made dependent by unemployment and depressed agricultural conditions, but also by the financial inability of communities to expand free or low-cost health facilities or preventive service, or even to maintain them at a pre-depression level. Private physicians and hospitals, whose contributions of free service have been traditionally taken for granted, carried an undue proportion of this public duty during the early part of the depression,[3] but were unable to continue shouldering the burden when 12 to 35 per cent of the population in their communities became dependent.

Illness is an important cause of dependency as well as an important factor in relief costs for those otherwise dependent. Few families in the low income groups can afford adequate medical attention.** Families who can maintain themselves under normal circumstances may find themselves helpless in the face of a crisis such as a serious illness, especially if it should affect the wage-earner. When one recalls that even during the "halcyon days" of 1929 almost 24 per cent of all American families had an income of less than $1,000 a year and 47 per cent—almost half—of all American families had incomes of less than $1,500 a year, it is apparent that such families can rarely have sufficient savings or resources available for an emergency. Almost 6 per cent of the cases accepted for relief each month in 1935 were cases in which medical care was the only type of assistance required. How many additional families were forced to apply for more extensive relief because of the disabling illness of the breadwinner is not known.

Illness is not only a frequent cause of dependency but also an unfortunate accompaniment of low income standards of living. Studies made by health agencies in many parts of the United States give statistical evidence of a close relationship between low incomes and high illness rates. A study of the incidence of illness in 5,096 families of different income levels in California shows that the rate of disabling illness for relief families exceeded by 55 per cent the rate in the group having incomes of $3,000 or over.[(a)] This study as well as recent surveys sponsored by the United States Public Health Service indicates markedly increased sickness rates in families which have suffered serious reductions in income during the depression.[(b)] Reports from various Wisconsin counties indicate that families which have applied for relief in the last year after having maintained themselves on a sub-marginal standard of living during many months of depression present more serious problems of health and nutrition than those which received assistance at an earlier period.

All of these factors combine to make the problem of providing adequate medical relief one of major importance. Prior to the development of a uniform plan for medical relief in the latter part of 1934, few local communities had a satisfactory plan for providing this type of service. Many counties employed a salaried physician who often gave only part of his time to relief cases; a few designated a panel of physicians who served on a fee or contract basis; a still smaller number had contracted with the local medical society on an annual basis. Undoubtedly in many counties relief clients who

[3] "When the record of this depression is written it will show that if there was ever one man that gave things without any return in this unemployment crisis it was the doctor, from one end of the country to the other. * * * It is a grand story, the work the physicians did for the unemployed." Harry L. Hopkins, Federal Relief Administrator, Address before Milbank Memorial Fund Conference, March, 1934.

Charitable contribution per Wisconsin physician, 1931, was estimated at $2,246 per year—total for state $6,370,000. Study of State Medical Society of Wisconsin, 1931.—*Editor's Note.*

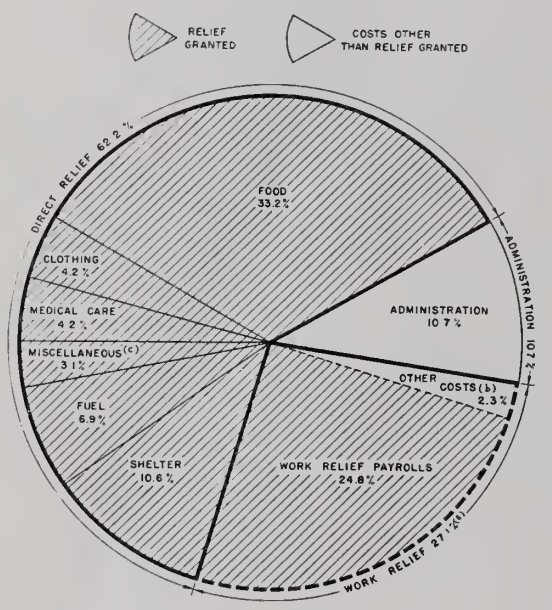
** This is a broad generalization which should not be made without a defining of terms and supportive Wisconsin data.—*Editor's Note.*

(a) Klem, Margaret C., "Medical Care and Costs in California Families in Relation to Economic Status." State Relief Administration of California, 1935. 115 p.

(b) Perrott, G. St. J., and Collins, Selwyn D., "Relation of Sickness to Income and Income Change in 10 Surveyed Communities." U. S. Gov't. Printing Office, 1935.

needed medical care failed to receive it because its importance was not recognized. To the local official medical attention frequently appears expensive[c] and too often the decision as to the necessity for medical care was made by persons who were interested primarily in keeping costs and taxes low, and who were unqualified to determine medical needs. Moreover, the fact that relief clients were unable to choose their physician had a tendency to cause them to forego needed medical aid for too long a period. While these policies may have kept immediate costs at a minimum, they did not reduce the need for medical care and in fact they may have increased medical costs during succeeding periods.

HOW THE UNEMPLOYMENT RELIEF DOLLAR WAS SPENT BY WISCONSIN UNEMPLOYMENT RELIEF AGENCIES —1935—



The medical plan sponsored by the state relief administration and adopted by most Wisconsin counties was based upon policies formulated by the Federal Emergency Relief Administration, which included medical relief in the types of assistance for which federal funds were granted to the states.

The state plan was formulated under the guidance of a medical and a dental advisor and was endorsed by the State Medical and Dental Societies. It provided for the systematic cooperation of the organized medical and dental professions with the state and local relief departments by establishing medical and dental advisory committees to assist each county relief department in meeting the medical problems of that community. In addition to acknowledging medical care as a fundamental need, this plan recognized the importance of affording the needy sick person the opportunity to choose his own physician, and the injustice of expecting physicians to provide professional services without remuneration.[4] It further established the important policy that decisions regarding the need for medical care and the type of care necessary, should be made only by persons equipped by professional training to take that responsibility. Doctors and dentists were paid upon a fee basis, and fee schedules, representing approximately fifty per cent of the normal charge for each type of service, were agreed upon in each community between the medical and dental societies and the relief department with approval by the state relief administration. All physicians and dentists licensed by the State were eligible to care for patients, upon acceptance of a written agreement. Medical and dental bills were examined and audited by the medical and dental committees, with regard to the type of care indicated by the diagnosis in each case.

COSTS AND EXTENT

Comparisons of cost and extent of medical service under the State plan in effect in the latter part of 1934 and the whole of 1935, with the former local plans, are made difficult by the lack of complete and comparable data for previous years. Salaries of city and county physicians were not reported as relief costs, and no estimate can be made of the

(c) Public Welfare Department Chart reproduced herewith (How Relief Dollar Was Spent, 1935) shows the proportion of medical relief to the total relief cost in 1935 was 4.2%.

[4] Schedule of allowances approximated cost of providing service.—*Editor's Note.*

amount of free service provided by private physicians.[3] Because of the medical facilities provided by Milwaukee county through the county dispensary and other welfare agencies, and not included in relief costs, Milwaukee's figures are not comparable with those for the remainder of the State. Similar local arrangements may affect the figures for other counties to a lesser extent and should be taken into account in making comparisons between counties.

An increase in the number of relief cases receiving medical aid during 1935 and in their proportion to the total relief load, indicates a more liberal policy in most counties. During the first seven months of 1934, prior to the adoption of a uniform state policy, 20.8 per cent of the total case load received medical or dental care, whereas during the same period of 1935, 29.6 per cent received such care.[(a)] During every month of 1935 the percentage of the case load receiving medical and dental care was higher than the average for 1934. The average for the year 1935 was 33.1 per cent, whereas the average for 1934 was only 19.0 per cent.

Although the total medical relief costs for 1935 were 77.8 per cent higher than in 1934, this represented an increase of only 1.3 per cent in relation to the total relief costs of those years. An increase in the cost of medical care per general relief case from 97 cents in the first seven months of 1934 to $1.62 for the same period in 1935 is apparently related to the increase in the proportion of relief cases receiving medical care in the latter period. An increase in the monthly average cost per case receiving medical or dental care from $5.07 to $6.45 in the same period appears to indicate some increased expense in providing service, but undoubtedly also reflects more adequate service to each case, as well as a possible increase in the proportion of medical cases made serious and costly by long neglect. In a few counties unusually high costs can be accounted for by the lack of hospital facilities or the failure or inability of the local community to provide funds for hospital care,[5] thus increasing the cost of home care, at the expense not only of public relief funds, but also of the safety of the patient.

CONCLUSION

The adequacy of medical care obviously cannot be judged solely by a statistical computation of costs or of cases. Adequate service in the face of declining relief funds, presents a problem of continuing importance to every county in the state. Maintenance of the health of potential wage earners and the safeguarding of the health of their families is not only an obvious measure for long time economy and public safety, but is a public obligation which cannot be thrust aside.[6]

A series of three tables[7] giving county by county information on medical relief costs during 1934 and 1935 follows.

[(a)] Except where otherwise indicated, data for Milwaukee county are excluded due to lack of comparability.

[5] Federal regulations 27 specifically excluded use of federal funds if patient was hospitalized.—*Editor's Note.*

[6] The following resolution was adopted by the State Board of Health on Feb. 27, 1936:

"WHEREAS, With the cessation of federal relief funds it is apparent that some counties are contemplating retrenchment in the field of medical care for the indigent, and

"WHEREAS, Such retrenchment can only result in an immediate increased sickness and death rate, and

"WHEREAS, This will bring about an ultimate resultant heavy institutional cost to the counties and state in the future because of any such inadequate programs, now therefore, be it

"*Resolved,* That the State Board of Health of Wisconsin, appreciating the significance of this threat to the public health of our citizens, respectfully urges the counties, cities, villages and towns to maintain an adequate medical relief program which will include, (1) the right of the sick to secure the services of the physician of their choice, (2) the manner of recompense be continued as under the federal relief program, and (3) that a policy of reasonable hospitalization be included when found essential to the welfare of the patient by the family physician. Feb. 27, 1936."—*Editor's Note.*

[7] A fourth table prepared under direction of W.E.R.A. statistical department is added to show the breakdown of sickness costs as between services of physicians, dentists, nurses, drug costs, etc.—*Editor's Note.*

I. COSTS OF MEDICAL[11] CARE SUPPLIED BY WISCONSIN RELIEF AGENCIES RECEIVING FEDERAL–STATE AID DURING 1934

Public Welfare Department, State of Wisconsin

	Total Unemployment Relief Cost	Total Medical[11] Cost	% Medical[11] Cost to Total Cost	Average per Month		
				Medical[11] Cost	Number of Unemployment Relief Cases	Cost per Relief Case
Adams	$ 23,460.04	$ 3,402.93	14.5	$ 283.58	96	$2.95
Ashland	358,522.49	11,851.09	3.3	987.59	1,239	.80
Barron	164,340.24	5,678.22	3.5	473.18	622	.76
Bayfield Group	224,764.59	8,953.14	4.0	746.09	947	.79
Brown Group	367,975.07	8,738.60	2.4	728.22	1,257	.58
Burnett (a)	36,569.49	7,092.56	19.4	886.57	328	2.70
Calumet (b)	7,589.52	157.30	2.1	78.65	166	.47
Chippewa	219,564.48	7,033.44	3.2	586.12	632	.93
Clark	155,955.88	22,196.66	14.2	1,849.72	700	2.64
Columbia	145,930.27	12,275.05	8.4	1,022.92	609	1.68
Crawford	39,109.06	3,070.75	7.9	438.68	272	1.61
Dane	1,431,209.14	46,449.41	3.2	3,870.78	3,546	1.09
Dodge Group	199,811.10	5,485.43	2.7	457.12	642	.71
Door	78,742.90	2,649.72	3.4	220.81	347	.64
Douglas	1,004,627.42	48,612.74	4.8	4,051.06	3,016	1.34
Dunn (c)	145,795.75	6,432.52	4.4	918.93	659	1.39
Eau Claire City	234,255.18	3,416.17	1.5	284.68	790	.36
Eau Claire Co. Group	56,835.76	3,172.90	5.6	264.41	221	1.20
Florence	93,009.90	3,222.40	3.5	268.53	321	.84
Fond du Lac Group	347,681.40	7,873.76	2.3	656.15	1,105	.59
Forest	282,590.70	21,253.30	7.5	1,771.11	882	2.01
Grant Group	137,691.27	9,701.61	7.0	808.47	565	1.43
Green	119,127.96	7,416.09	6.2	618.01	371	1.67
Green Lake Group	35,109.47	1,376.91	3.9	114.74	129	.89
Iowa	69,148.70	4,898.25	7.1	408.19	252	1.62
Iron	238,389.15	12,677.20	5.3	1,056.43	781	1.35
Jackson Indians	17,366.71	28.25	0.2	2.35	58	.04
Jefferson	126,495.41	3,402.67	2.7	283.64	468	.61
Juneau	117,641.39	9,443.23	8.0	786.94	520	1.51
Kenosha	1,793,829.03	44,911.32	2.5	3,742.61	4,055	.92
La Crosse	412,342.43	8,618.08	2.1	718.17	1,255	.57
Lafayette	66,025.81	3,943.09	6.0	328.59	183	1.79
Langlade	266,188.17	25,354.20	9.5	2,112.85	948	2.23
Lincoln	220,554.93	15,046.14	6.8	1,253.84	731	1.71
Manitowoc	379,748.45	6,307.13	1.7	525.59	1,117	.47
Marathon	427,862.78	19,483.15	4.6	1,623.60	1,352	1.20
Marinette	319,280.35	11,198.20	3.5	933.18	1,153	.81
Monroe	103,166.09	7,051.26	6.8	587.60	459	1.28
Oconto	314,994.81	12,402.20	3.9	1,033.52	1,056	.98
Oneida	257,489.83	9,615.72	3.7	801.31	743	1.08
Oneida-Hobart Indians	62,250.30	6,231.65	10.0	519.30	269	1.93
Outagamie Group	174,026.68	4,023.97	2.3	335.33	580	.58
Ozaukee	61,644.87	2,248.17	3.6	187.34	181	1.03
Pepin(d)	1,094.52	139.45	12.7	139.45	74	1.88
Polk	187,106.27	17,683.38	9.5	1,473.61	748	1.97
Portage	287,319.03	9,186.88	3.2	765.57	847	.90
Price	129,661.03	5,589.85	4.3	465.82	559	.83
Racine	1,520,329.27	31,214.93	2.1	2,601.24	4,303	.60
Richland Group (b)	5,020.81	150.70	3.0	75.35	142	.53
Rock	653,897.06	19,678.16	3.0	1,639.85	2,004	.82
Rusk	119,949.38	6,166.93	5.1	513.91	384	1.34
Sauk	130,470.67	5,397.80	4.1	449.82	593	.76
Sawyer	84,162.74	8,654.02	10.3	721.17	362	1.99
Shawano	182,401.48	15,116.32	8.3	1,259.69	676	1.86
Sheboygan Group	548,823.12	4,764.28	0.9	397.02	1,754	.23
Taylor	97,030.16	11,638.38	12.0	969.86	477	2.03
Vernon	104,394.97	8,956.78	8.6	746.40	450	1.66
Vilas	66,571.52	4,187.76	6.3	348.98	280	1.25
Walworth	306,934.98	12,645.42	4.1	1,053.78	838	1.26
Washburn	219,298.85	13,905.99	6.3	1,158.83	813	1.43
Washington	73,578.24	3,127.43	4.3	260.62	263	.99
Waukesha Group	401,959.85	10,307.95	2.6	859.00	1,050	.82
Waupaca Group	135,551.68	5,354.34	4.0	446.19	529	.84
Waushara	105,856.47	4,173.13	3.9	347.76	421	.83

I. COSTS OF MEDICAL[11] CARE SUPPLIED BY WISCONSIN RELIEF AGENCIES RECEIVING FEDERAL–STATE AID DURING 1934—Continued

Public Welfare Department, State of Wisconsin

	Total Unemployment Relief Cost	Total Medical[11] Cost	% Medical[11] Cost to Total Cost	Average per Month: Medical[11] Cost	Average per Month: Number of Unemployment Relief Cases	Average per Month: Cost per Relief Case
Winnebago Group (e)	686,036.76	20,298.66	3.0	1,691.55	2,320	.73
Oshkosh City	518,846.31	15,428.59	3.0	1,402.60	1,976	.71
Neenah-Menasha	77,755.69	1,891.84	2.4	171.98	307	.56
Wood	364,077.56	17,622.04	4.8	1,468.50	1,189	1.23
Total without Milwaukee	$17,750,241.39	$ 700,358.16	3.9	$ 59,480.47	56,699	$1.05
Milwaukee (f)	10,118,835.56	57,478.14	0.6	7,184.77	33,384	.22
Total with Milwaukee	$27,869,076.95	$ 757,836.30	2.7	$ 66,665.24	90,083	$ 0.74

(11) Medical costs is used in sense of total sickness costs.
(a) Not participating in Federal–State aid from July to October; average based on eight months.
(b) Joined Federal–State aid system November 1, 1934, average based on two months.
(c) Joined Federal–State aid system June 1, 1934; average based on eight months.
(d) Joined Federal–State aid system December 1, 1934.
(e) Oshkosh City and Neenah–Menasha were separate agencies until December 1, 1934, when they merged to become Winnebago County Group. Figures for Oshkosh and Neenah–Menasha represent eleven months; for Winnebago the entire year.
(f) Data for January through April unavailable, average based on eight months.

II. COSTS OF MEDICAL CARE SUPPLIED BY WISCONSIN RELIEF AGENCIES RECEIVING FEDERAL–STATE AID DURING 1935

Public Welfare Department, State of Wisconsin

	Total Unemployment Relief Cost	Total Medical[11] Cost	% Medical[11] Cost to Total Cost	Average per Month: Medical[11] Cost	Average per Month: Number of Unemployment Relief Cases	Average per Month: Cost per Relief Case
Adams	$ 31,054.10	$ 5,571.58	17.9	$ 464.30	128	$3.63
Ashland	524,059.85	16,134.52	3.1	1,344.54	1,447	.93
Barron	262,700.95	14,078.63	5.4	1,173.22	836	1.40
Bayfield Group	369,643.41	14,102.57	3.8	1,175.21	1,191	.99
Brown Group	506,530.44	28,853.93	5.7	2,404.49	1,480	1.62
Burnett	173,733.15	14,357.68	8.3	1,196.47	575	2.08
Calumet	78,215.96	6,341.74	8.1	528.48	259	2.04
Chippewa	281,387.38	12,784.33	4.5	1,065.36	833	1.28
Clark (a)	118,728.74	14,706.83	12.4	1,470.68	565	2.60
Columbia	151,937.96	10,172.07	6.7	847.67	530	1.60
Crawford	134,244.65	9,959.60	7.4	829.97	456	1.82
Dane	1,629,791.92	67,782.23	4.2	5,648.52	3,816	1.48
Dodge Group	222,425.13	9,026.03	4.1	752.17	646	1.16
Door	123,375.34	6,685.93	5.4	557.16	411	1.36
Douglas	1,407,225.74	99,205.07	7.0	8,267.09	3,703	2.23
Dunn	237,990.03	20,790.86	8.7	1,732.57	771	2.25
Eau Claire City	357,665.63	7,626.25	2.1	635.52	1,005	.63
Eau Claire Co. Group	111,185.40	6,898.54	6.2	574.88	347	1.66
Florence	142,498.47	5,523.79	3.9	460.32	411	1.12
Fond du Lac Group	458,313.15	19,793.50	4.3	1,649.46	1,194	1.38
Forest	358,416.51	26,138.49	7.3	2,178.21	1,001	2.18
Grant Group	160,920.03	11,867.90	7.4	988.99	606	1.63
Green	149,126.97	10,188.10	6.8	849.01	409	2.08
Green Lake Group	63,813.28	2,827.62	4.4	235.64	188	1.25
Iowa	93,934.17	5,958.88	6.3	496.57	328	1.51
Iron	315,519.51	19,443.57	6.2	1,620.30	923	1.76

II. COSTS OF MEDICAL CARE SUPPLIED BY WISCONSIN RELIEF AGENCIES RECEIVING FEDERAL-STATE AID DURING 1935—Continued

Public Welfare Department, State of Wisconsin

	Total Unemployment Relief Cost	Total Medical[11] Cost	% Medical[11] Cost to Total Cost	Average per Month		
				Medical[11] Cost	Number of Unemployment Relief Cases	Cost per Relief Case
Jackson Co. Group	27,899.62	2,814.06	10.1	234.51	85	2.76
Jefferson	156,688.59	9,125.29	5.8	760.44	484	1.57
Juneau	183,360.71	12,822.72	7.0	1,068.56	594	1.80
Kenosha	1,901,296.34	57,826.10	3.0	4,818.84	4,094	1.18
La Crosse	608,834.05	22,857.72	3.8	1,904.81	1,554	1.23
Lafayette	121,158.47	11,785.83	9.7	982.15	373	2.63
Langlade	450,812.80	47,177.59	10.5	3,931.47	1,274	3.09
Lincoln	325,985.93	23,470.12	7.2	1,955.84	966	2.02
Manitowoc	533,667.84	17,286.61	3.2	1,440.55	1,278	1.13
Marathon	601,215.88	36,279.10	6.0	3,023.26	1,565	1.93
Marinette	595,158.08	29,227.53	4.9	2,435.63	1,626	1.50
Monroe	204,621.50	14,095.67	6.9	1,174.64	609	1.93
Oconto	386,683.49	25,404.92	6.6	2,117.08	1,116	1.90
Oneida	332,606.57	20,275.04	6.1	1,689.59	917	1.84
Oneida-Hobart Indians	79,081.33	5,308.61	6.7	442.38	245	1.81
Outagamie Group	253,588.97	10,946.47	4.3	912.21	670	1.36
Ozaukee	62,583.87	3,443.98	5.5	287.00	174	1.65
Pepin	54,830.33	6,240.23	11.4	520.02	173	3.01
Polk	226,084.53	19,463.66	8.6	1,621.97	815	1.99
Portage	442,706.85	16,042.91	3.6	1,336.91	1,132	1.18
Price	226,061.09	12,598.65	5.6	1,049.89	737	1.42
Racine	1,621,426.82	41,996.16	2.6	3,499.68	3,800	.92
Richland Group	85,335.66	6,325.46	7.4	527.12	338	1.56
Rock	809,167.31	34,685.72	4.3	2,890.48	2,134	1.35
Rusk	172,614.56	9,400.52	5.4	783.38	544	1.44
St. Croix (b)	115,854.07	8,864.99	7.7	805.91	438	1.84
Sauk	160,312.89	6,298.96	3.9	524.91	625	.84
Sawyer	190,860.78	14,801.50	7.8	1,233.46	620	1.99
Shawano	310,637.54	29,475.27	9.5	2,456.27	951	2.58
Sheboygan Group	863,075.80	23,608.48	2.7	1,967.37	2,004	.98
Taylor	115,564.02	9,225.25	8.0	768.77	484	1.59
Trempealeau	94,679.87	8,260.88	8.7	688.41	338	2.04
Vernon	203,063.28	15,207.32	7.5	1,267.28	635	2.00
Vilas	133,669.29	6,304.96	4.7	525.41	435	1.21
Walworth	330,059.24	16,094.42	4.9	1,341.20	839	1.60
Washburn	308,342.73	18,332.49	5.9	1,527.71	975	1.57
Washington	108,006.77	9,064.23	8.4	755.35	333	2.27
Waukesha Group	456,015.55	19,727.53	4.3	1,643.96	1,050	1.57
Waupaca Group	184,517.39	14,132.20	7.7	1,177.68	554	2.13
Waushara	155,526.33	10,327.35	6.6	860.61	518	1.66
Winnebago Group	857,196.55	42,568.15	5.0	3,547.35	2,415	1.47
Wood	510,343.87	29,107.51	5.7	2,425.63	1,277	1.90
Total without Milwaukee	$ 24,025,925.03	$1,245,122.40	5.2	$104,072.49	65,847	$1.58
Milwaukee	14,800,812.51	182,157.89	1.2	15,179.82	34,330	.44
Total with Milwaukee	$ 38,826,737.54	$1,427,280.29	3.7	$119,252.31	100,177	$1.19

(11) Medical costs is used in sense of total sickness costs.
(a) Not participating in Federal-State aid in April and May 1935; average based on ten months.
(b) Joined Federal-State aid system February 1, 1935; average based on eleven months.

III. AVERAGE NUMBER OF UNEMPLOYMENT RELIEF CASES RECEIVING MEDICAL CARE PER MONTH DURING 1935

Public Welfare Department, State of Wisconsin

Agency	Average Number of Unemployment Relief Cases Per Month	Average Number of Relief Cases Receiving Medical[12] Care Per Month	Per Cent of Relief Cases Receiving Medical[12] Care Per Month
Adams	128	43	33.8
Ashland	1,447	233	16.1
Barron	836	156	18.6
Bayfield Group	1,191	144	12.1
Brown Group	1,480	348	23.5
Burnett	575	179	31.1
Calumet	259	35	13.7
Chippewa	833	136	15.6
Clark	565	123	21.8
Columbia	530	146	27.6
Crawford	456	100	22.1
Dane	3,816	1,592	41.7
Dodge Group	646	96	14.9
Door	411	80	19.5
Douglas	3,703	877	23.7
Dunn	771	158	20.5
Eau Claire City	1,005	113	11.2
Eau Claire County Group	347	78	22.5
Florence	411	77	18.7
Fond du Lac Group	1,194	178	14.9
Forest	1,001	247	24.7
Grant Group	606	108	17.8
Green	409	160	39.1
Green Lake Group	188	40	21.2
Iowa	328	56	17.0
Iron	923	215	23.3
Jackson Group	85	18	21.6
Jefferson	484	102	21.1
Juneau	594	108	18.2
Kenosha	4,094	859	21.0
La Crosse	1,554	353	22.7
Lafayette	373	109	29.3
Langlade	1,274	343	26.9
Lincoln	966	266	27.5
Manitowoc Group	1,278	510	39.9
Marathon	1,565	382	24.4
Marinette	1,626	283	17.4
Monroe	609	173	28.5
Oconto	1,116	332	29.8
Oneida	917	197	21.5
Oneida-Hobart Indians	245	85	34.7
Outagamie Group	670	88	13.2
Ozaukee	174	40	23.0
Pepin	173	47	26.9
Polk	815	127	15.5
Portage	1,132	335	29.6
Price	737	134	18.2
Racine	3,800	742	19.5
Richland Group	338	66	19.7
Rock	2,134	606	28.4
Rusk	544	236	43.3
St. Croix	438	74	17.0
Sauk	625	109	17.5
Sawyer	620	97	15.7
Shawano	951	274	28.8
Sheboygan Group	2,004	622	31.0
Taylor	484	91	18.9
Trempealeau	338	55	16.4
Vernon	635	156	24.6
Vilas	435	68	15.7
Walworth	839	218	25.9
Washburn	975	264	27.1
Washington	333	97	29.1
Waukesha Group	1,050	237	22.6
Waupaca Group	554	161	29.1
Waushara	518	165	31.8
Winnebago Group	2,415	986	40.8
Wood	1,277	339	26.6
Total without Milwaukee	65,847	16,272	24.7
Milwaukee	34,330	1,765	5.1
Total with Milwaukee	100,177	18,037	18.0

(12) Medical care is used in sense of sickness care including physician, dentist or nurse service.

IV. COST OF MEDICAL CARE IN WISCONSIN RELIEF AGENCIES RECEIVING FEDERAL–STATE AID DURING 1935

Only Home and Office, Emergency Care—Does Not Include Chronic Care or Hospital Surgery

(Prepared by the State Medical Society of Wisconsin from Public Welfare Department records.)

	Persons Receiving Medical Service	Total Relief Cost	MEDICAL COST							
			*Total	PHYSICIANS' SERVICES				Drugs	Nursing	Other Health Services
				*Amt. Paid Phys. Only	% of Tot. Rel. Cost	% of Tot. Med. Cost	Av. Cost per Pers.			
Adams	706	$ 31,054.10	$ 5,748.08	$ 3,847.83	12.36%	66.94%	$5.44	$ 1,360.42	$ 289.22	$ 250.61
Ashland	3,230	524,059.85	19,698.26	12,218.60	2.33	62.03	3.78	2,659.42	749.66	4,070.58
Barron	2,203	262,700.95	18,158.85	9,655.14	3.67	53.17	4.38	4,023.54	823.70	3,656.47
Bayfield	2,517	369,643.41	17,086.47	10,114.87	2.74	59.20	4.02	2,558.25	1,198.60	3,219.65
Brown	4,919	506,530.44	30,495.78	16,556.79	3.27	54.29	3.36	10,439.92	1,016.55	2,482.52
Burnett	2,225	173,733.15	15,373.18	10,573.53	6.09	68.78	4.75	3,302.24	.49	1,448.41
Calumet	562	78,215.96	7,169.89	4,398.13	5.62	61.34	7.82	1,001.44	710.97	1,059.25
Chippewa	2,319	281,387.38	17,975.91	8,726.02	3.10	48.54	3.76	2,988.10	490.25	5,771.54
Clark (1)	1,378	118,728.74	16,544.17	9,684.35	8.16	58.54	7.03	3,110.12	1,259.91	2,489.79
Columbia	1,993	151,937.96	11,074.87	6,713.33	4.42	60.62	3.37	2,782.22	371.50	1,207.82
Crawford	1,401	134,244.65	11,035.60	9,034.26	6.73	81.86	6.45	791.59	126.25	1,083.50
Dane	21,576	1,629,791.92	79,144.09	34,245.92	2.10	43.27	2.27	22,292.74	2,643.98	19,961.45
Dodge	1,307	222,425.13	10,832.73	6,261.34	2.81	57.80	4.79	2,074.30	493.49	2,003.60
Door	1,079	123,375.34	7,552.68	3,770.95	3.06	49.93	3.49	2,058.52	246.07	1,507.14
Douglas	12,858	1,407,225.74	119,935.67	42,346.79	3.01	35.31	3.29	25,290.39	24,219.29	28,079.20
Dunn	2,015	237,990.03	24,011.81	14,632.65	6.15	60.94	7.26	5,281.54	830.20	3,375.20
Eau Claire City	1,447	357,665.63	9,234.90	3,712.40	1.04	40.20	2.56	2,727.82	278.25	2,516.43
Eau Claire Co.	1,003	111,185.40	7,812.94	4,513.17	4.06	57.76	4.50	1,664.63	401.79	1,233.35
Florence	1,004	142,498.47	6,315.29	3,514.70	2.47	55.65	3.50	1,299.52	29.50	1,471.57
Fond du Lac	2,746	458,313.15	21,875.44	11,911.07	2.60	54.45	4.34	7,393.06	152.25	2,419.06
Forest	3,599	358,416.51	31,009.34	14,180.04	3.96	57.26	3.94	5,153.66	3,140.69	8,534.95
Grant	1,659	160,920.03	12,964.76	8,090.71	5.03	62.40	4.88	3,123.93	400.50	1,349.62
Green	2,453	149,126.97	11,637.57	6,669.11	4.47	57.31	2.72	994.94	2,008.58	1,964.94
Green Lake	562	63,813.28	3,219.62	2,121.60	3.32	65.89	3.77	622.02	84.00	392.00
Iowa	793	93,934.17	6,502.88	4,740.41	5.05	72.90	5.98	254.63	912.84	595.00
Iron	3,165	315,519.51	22,373.07	10,314.50	3.27	46.10	3.26	5,664.08	1,352.25	5,042.24
Jackson Co. (2)	212	9,770.99	2,752.84	1,635.55	16.74	59.41	7.71	705.29	177.50	234.50
Jackson Co. Indians (3)	48	18,128.63	178.47	89.10	.49	49.92	1.86	21.74	----------	50.24
Jefferson	2,060	156,688.59	11,037.29	6,591.20	4.21	59.72	3.20	2,222.90	80.00	2,143.19
Juneau	1,693	183,360.71	13,728.47	7,547.16	4.12	54.97	4.46	2,880.35	692.68	2,608.28
Kenosha	14,002	1,901,296.34	72,882.10	30,616.84	1.61	42.01	2.19	17,569.62	3,891.61	20,804.03
La Crosse	4,891	608,834.05	33,781.47	14,440.99	2.37	42.75	2.95	3,453.43	674.55	15,212.50
Lafayette	1,629	121,158.47	12,977.33	10,252.45	8.46	79.00	6.29	276.88	1,256.50	1,191.50
Langlade	4,261	450,812.80	52,203.01	30,841.62	6.84	59.08	7.24	10,586.06	3,511.57	7,263.76
Lincoln	4,103	325,985.93	27,869.38	15,282.75	4.69	54.84	3.72	7,143.49	888.46	4,554.78
Manitowoc	7,776	533,667.84	20,871.93	10,508.35	1.97	50.35	1.35	5,406.55	1,243.12	3,713.91
Marathon	5,330	601,215.88	42,961.35	27,536.68	4.58	64.10	5.17	7,264.32	1,027.85	7,132.50
Marinette	4,548	595,158.08	34,556.41	14,965.81	2.51	43.31	3.29	8,276.05	2,709.22	8,605.33
Milwaukee	31,298	14,800,812.51	231,135.74	134,539.11	.91	58.21	4.30	29,911.15	12,597.14	54,088.34
Monroe	3,125	204,621.50	15,879.37	8,916.57	4.36	56.15	2.85	3,679.88	944.72	2,338.20

IV. COST OF MEDICAL CARE IN WISCONSIN RELIEF AGENCIES RECEIVING FEDERAL-STATE AID DURING 1935—Continued

Only Home and Office, Emergency Care—Does Not Include Chronic Care or Hospital Surgery

(Prepared by the State Medical Society of Wisconsin from Public Welfare Department records.)

	Persons Receiving Medical Service	Total Relief Cost	MEDICAL COST							
			*Total	PHYSICIANS' SERVICES				Drugs	Nursing	Other Health Services
				*Amt. Paid Phys. Only	% of Tot. Rel. Cost	% of Tot. Med. Cost	Av. Cost per Pers.			
Oconto	4,918	386,603.19	29,285.51	16,910.73	4.37	57.74	3.44	6,380.02	925.59	5,069.17
Oneida County	2,703	332,606.57	22,299.54	14,584.97	5.39	65.40	4.38	3,817.01	1,296.00	2,601.56
Oneida-Hobart Indians	1,262	79,081.33	6,082.36	4,650.57	5.88	76.46	3.68	632.90	25.14	773.75
Outagamie	1,283	253,588.97	12,532.47	8,025.90	3.16	64.04	6.25	2,520.04	242.85	1,743.68
Ozaukee	654	62,583.87	3,882.48	2,138.31	3.42	55.07	3.27	834.91	350.41	558.85
Pepin	646	54,830.33	8,452.88	4,063.44	7.41	48.07	6.29	1,369.32	554.42	2.465.70
Polk	1,671	226,084.53	21,340.66	11,557.66	5.11	54.16	6.92	1,863.82	5,962.43	1,956.75
Portage	4,790	442,706.85	17,898.07	12,256.87	2.77	68.48	2.56	2,921.25	797.49	1,922.46
Price	2,000	226,061.09	15,387.66	7,723.68	3.42	50.19	3.86	2,951.43	782.40	3,930.15
Racine	16,155	1,621,426.82	47,621.16	21,392.82	1.32	44.92	1.32	15,786.93	506.30	9,935.11
Richland	1,009	85,335.66	7,142.18	5,345.34	6.26	74.84	5.30	323.96	609.19	863.69
Rock	8,799	809,167.31	37,144.19	24,984.30	2.84	67.26	3.09	6,566.94	984.80	4,608.15
Rusk	3,575	172,614.56	11,174.72	5,522.71	1.54	49.42	3.20	2,784.55	923.04	1,944.42
St. Croix (4)	936	115,854.07	10,075.89	6,061.43	5.23	60.16	6.47	1,443.40	980.78	1,590.28
Sauk (5)	1,360	160,312.89	6,788.36	4,447.19	2.77	65.51	3.27	1,137.90	330.42	872.85
Sawyer	1,303	190,860.78	15,792.75	9,601.35	5.03	60.79	7.37	2,853.06	2,044.71	1,293.63
Shawano Co.	3,771	305,230.13	36,355.97	19,951.95	6.54	54.88	5.29	7,517.39	601.81	8,284.82
Shawano Indians (6)	45	5,407.41	400.80	222.75	4.12	55.58	4.95	46.20	----------	131.85
Sheboygan	7,748	863,075.80	33,047.20	16,456.13	1.91	49.79	2.12	4,916.43	----------	11,674.64
Taylor	2,218	115,564.02	10,501.75	6,475.73	5.60	61.66	2.92	2,080.77	2.19	1.726.25
Trempealeau	852	94,679.87	9,346.63	5,606.16	5.92	59.98	6.58	2,049.62	412.17	1,278.68
Vernon	2,094	203,063.28	17,228.26	10,144.17	4.99	58.88	4.84	3,412.10	520.93	3,151.06
Vilas	904	133,669.29	7,789.08	3,940.33	2.95	50.59	4.36	1,120.89	899.95	1,827.91
Walworth	2,861	330,059.24	18,373.92	10,698.49	3.24	58.23	3.74	4,007.45	751.37	2,916.61
Washburn	3,748	308,342.73	20,819.84	10,910.37	3.54	52.40	2.91	4,651.19	1,988.48	3,269.80
Washington	1,573	108,006.77	10,358.73	5,303.20	4.91	51.19	3.37	2,154.46	196.95	2,704.12
Waukesha	3,188	456,015.55	23,442.27	14,557.45	3.19	62.10	4.57	3,696.53	485.75	4,702.54
Waupaca	2,445	184,517.39	15,972.85	10,644.80	5.77	66.64	4.35	1,684.56	1,363.60	2,279.89
Waushara	2,115	155,526.33	12,459.35	7,629.46	4.90	61.23	3.61	1,870.67	827.22	2.132.00
Winnebago	13,182	857,196.55	47,390.20	23,986.50	2.80	50.61	1.82	11,730.99	1,481.24	10,191.47
Wood	4,356	510,343.87	35,138.68	14,882.95	2.92	42.35	3.42	10,040.22	2,106.49	8,109.02
State Total	269,859	$40,274,650.24	$1,689,125.42	$906,990.10	4.28%	57.25%	$4.23	$335,477.66	$102,879.83	$343,637.81

* Reimbursement for home and office, emergency care—does not include chronic care or hospital surgery.
(1) April and May not included.
(2) January, February and March not included.
(3) February and March not included.
(4) January not included.
(5) July not included.
(6) February not included.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED FOR REVIEW

The Balanced Diet. By Logan Clendening, M. D., Professor of Clinical Medicine, University of Kansas. Author of "The Human Body," etc. D. Appleton–Century Company, New York, 1936. Price $1.50.

The Study of Anatomy. By S. E. Whitnall, M. D., Professor of Anatomy in the University of Bristol, 1935. Third edition. William Wood and Company, Baltimore, 1936. Price $1.75.

A Textbook of Histology. By Joseph Krafka, Jr., M. D., Professor of Microscopic Anatomy, University of Georgia, School of Medicine, Augusta. Williams & Wilkins Company, Baltimore, 1936. Price $2.50.

The Collected Papers of the Mayo Clinic and the Mayo Foundation. Edited by Richard M. Hewitt, M. D., Lloyd G. Potter and A. B. Nevling, M. D. Volume XXVII (Papers of 1935—Published 1936) W. B. Saunders Company, Philadelphia, 1936. Cloth $12.00 net.

Exophthalmic Goiter and Its Medical Treatment. By Israel Bram, M. D., Medical Director, Bram Institute for the treatment of goiter, Upland, Pa. C. V. Mosby Company, St. Louis, 1936. Price $6.00. Second edition, completely revised and enlarged.

Synopsis of Diseases of the Heart and Arteries. By George R. Herrmann, M. D., Professor of Clinical Medicine, University of Texas. C. V. Mosby Company, St. Louis, 1936. Price $4.00.

Principles and Practice of Recreational Therapy for the Mentally Ill. By John Eisele Davis, M. A., Senior Physical Director, Veterans Administration Facility, Perry Point, Maryland, in collaboration with William Rush Dunton, Jr., M. D., Instructor in Psychiatry, The Johns Hopkins University. A. S. Barnes and Company, New York, 1936. Price $3.00.

The Patient and the Weather. By William F. Peterson, M. D., with the assistance of Margaret E. Milliken, S. M. Volume I, Part 2, Autonomic Integration. Edwards Brothers, Inc., Ann Arbor, Michigan, 1936. Price $9.00.

Certified Milk. Proceedings of the American Association of Medical Milk Commission, Inc. In conjunction with the Certified Milk Producers' Association of America, Inc. 1932–1935.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

Allergy of the Nose and Paranasal Sinuses. By French K. Hansel, M.D., assistant professor of clinical otolaryngology, Washington University School of Medicine. Price $10.00. C. V. Mosby Company, St. Louis, Mo.

This book is one of the few written about allergy of the respiratory system for service of the otolaryngologist. Since this aspect of the practice for this specialty is very modern and still in its infancy, it is fitting that a review and summary of the present knowledge of the subject be presented to the profession. The author gives a very excellent review of the recent advancements of the physiology of the nose and sinuses and develops the clinical picture of allergic disease through the physiology, histology, and biochemistry. The relationship of allergic diseases to infection is also well discussed. The theory of allergy and its developments is very well explained as it pertains to the respiratory system. The method of diagnosis and the findings of significance are given proper emphasis. There is a short discussion of bronchial asthma and allergy and immunity in relation to ophthalmology, for a good portion of the book is devoted to treatment, especially the treatment of hay-fever. I feel that the book is an important addition to the armamentarium of the otolaryngologist. R.W.S.

Essentials of Psychopathology. By George W. Henry, associate professor of psychiatry, Cornell University Medical School, New York; attending psychiatrist, The New York Hospital, New York City. Price $4.00. William Wood & Co., Baltimore.

This book should be considered as a valuable supplement to the available texts in the field of psychiatry and psychopathology. The chapter on the function of the brain is excellent. The chapter dealing with mental dynamisms, defining the different terms commonly used in psychiatry, should be of help to the student.

In general, I feel that this book is quite elementary. It should, therefore, be a good reference book for the student, but of little help to those who labor in the field of psychiatry. I. B. S.

Roentgenographic Technique. By Darmon A. Rhinehart, M. D. professor of roentgenology and applied anatomy, School of Medicine, University of Arkansas. Second edition, thoroughly revised. Price $5.00. Lea and Febiger, Philadelphia.

The author has revised and brought up-to-date the second edition of this excellent book on roentgenographic technique. He has included a description of some of the newer apparatus and technical procedures while retaining intact the general features and method of presentation of the first edition. As with the earlier one, this volume is highly recommended both as a textbook for those institutions giving courses in roentgenographic technique and for private practitioners desiring a reference work on this subject. L. W. P.

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Surgical Clinic of North America. (Chicago number—February 1936). Issued serially, one number every other month. Paper $12.00; Cloth $16.00 net. W. B. Saunders, Philadelphia.

This volume lives up to the high standard set by its predecessors. The symposium on carcinoma of the cervix is ably presented from many different aspects. The clinic on the present status of the problem of appendicitis by Arthur Dean Bevan is exceptionally good. The clinics on manipulative surgery and sprains, as well as those on breast, surgery of presacral sympathetic plexus and gangrene, are excellent. This volume is highly recommended to the general surgeon as well as the specialist. K.E.L.

Pediatric Nursing. By John Zahorsky, A.B., M.D. Professor of pediatrics, and director of the department of pediatrics, St. Louis University School of Medicine; Pediatrician in chief to the St. Mary's group of Hospitals. Assisted by Beryl E. Hamilton, R. N., St. Luke's Hospital, St. Louis, Mo. C. V. Mosby Co., St. Louis, Mo. Price $3.00.

Dr. Zahorsky has divided the field of pediatric nursing into two distinct parts: the science of pediatric nursing, and the practice of pediatric nursing.

In discussing the science, Dr. Zahorsky has included the growth and development of the infant and child, infant and child nutrition, the diagnosis and prevention of diseases of childhood and the medical aspect of these diseases. Some of the discussions are very brief and do not seem to emphasize the information important to nurses.

The practice of pediatric nursing includes a discussion of the pediatric department, including its various aspects,—the care of the child in the home, and several chapters concerned with definite nursing procedures.

The organization of the book seems somewhat confusing and considerable repetition of minor points can be noticed. The discussions of the nursing procedure lose their usefulness by being too indefinite.

There are many valuable illustrations in this book which increase its value as a reference book. H.I.D.

New Pathways For Children With Cerebral Palsy. By Gladys Gage Rogers, director of Robin Hood's Barn, a camp school for children with cerebral palsy and Leah C. Thomas, director of therapeutics at Robin Hood's Barn. Price $2.50. The Macmillan Company, New York, N. Y.

This book is divided into two parts. In the first part the authors set forth their ideals in the life plan, educational program, and problems which are vital to the inner life of the child with cerebral palsy. It is their ideal in "Robin Hood's Barn" to create a world which is adapted to the child rather than adapting the child to the world. They feel that it is difficult enough for the child to overcome the physical handicap; therefore, in his mental and social adjustments all obstacles which the average normal child encounters should be removed. Their outline of a day's work is given.

A chapter on their methods of obtaining complete relaxation is also given. They feel that making the child comfortable, keeping the child happy, and seeing that he is interested afford a child a marked degree of relaxation which is sustained. Their muscle training is carried out by indirect methods, namely, by playing games and singing songs accompanied by bodily movements. Toys are also used in muscle training. Their playground apparatus is designed and made for the individual child.

The last two chapters of the first part are given over to a discussion of body mechanics and the surgical aspects of these cerebral palsies. The operations which have proved of benefit are outlined. This chapter is written by R. Nelson Hatt, M. D., F.A.C.S.

Chapter VIII, the first of the second part, is devoted to the responsibilities of the parents. The ideas of the authors conform with those of Mrs. Fischel in her book "The Spastic Child." This chapter furnishes excellent reading for the parent of such a child.

Chapter IX deals with a case history which shows what can be accomplished by diligent training. In Chapter X ideas are given concerning the decoration and furnishing of a child's room. The idea in regard to the child's room is "to make a room in which he has a miniature world equal in beauty to the ever-changing world which surrounds other children."

In regard to education the authors make an ardent plea that children affected with cerebral palsy be given more mental stimulus and more mental activity than is given a normal child. Their purpose in this is to assure him that even though he is handicapped in physical well-being and development he can go far beyond the normal child in acquiring knowledge. They feel that the physical energy which is directed to athletics and exercise in normal children can thus be directed to the study of the world about him. They also advise early education.

The book is chiefly valuable to parents of cerebrospastic children, physiotherapists, and school teachers who care for these unfortunate children. It is a book well worth adding to their libraries. H. W. W.

A Textbook of Roentgenology. By B. J. Michael Harrison, M.B., Director of Department of Roentgenology, Vancouver General Hospital; Roentgenologist to Vancouver Public Health Institute for Diseases of the Chest. Price $10.00. William Wood and Company, Baltimore, Md.

This book forms a welcome addition to the few textbooks available in the English language on x-ray diagnosis and therapy. The author has departed from the usual type of such books in that he gives considerable space to a description of the gross and microscopic pathological picture and correlates the pathology of disease with its roentgenological appearances. Roentgenological diagnosis is based upon variation in shadow densities produced by gross pathological change. Proper interpretation of x-ray films depends upon a knowledge of the

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pathology of disease and the manner in which such pathological processes will change the normal shadows seen on the film.

The book covers a wide range of diseases in which roentgenological examination or treatment may be indicated. The sections dealing with the therapeutic use of roentgen rays are brief and are apparently intended merely to convey to the reader the indications for therapy and the results to be expected. This is to be commended since it would be impossible in a book of this scope to cover fully both diagnostic and therapeutic roentgenology. Illustrations are not numerous but are of uniformly good quality and the author relies more on description than on pictorial representation. A few adverse comments may be mentioned. For instance, the author advocates the use of thorotrast for visualization of the liver and spleen in a wide variety of conditions, without sufficient warning as to the possible dangers of the method. This method is not universally accepted as being entirely safe and its use should be limited to a relatively few conditions for the present. The description of the roentgenological findings in non-opaque foreign bodies in the air passages is inadequate and the reader may get the impression that x-ray examination is of relatively little aid while the opposite is certainly true. The book should prove of value to students and general practitioners by revealing to them many uses for x-rays both in diagnosis and therapy of which they may not be aware and by providing for them a basic knowledge of roentgenology. The roentgenologist will find the correlation of the pathological and roentgenological pictures of interest.

L. W. P.

The Pharmacopoeia of the United States of America. Eleventh decennial revision. By authority of the United States Pharmacopoeial Convention, held at Washington, D. C., May 13 and 14, 1930. Mack Printing Co., Easton, Pa.

From the standpoint of the physician, several important departures from the U.S.P.X. are included in Revision XI. The adoption of a standard U.S.P. Digitalis Unit, which corresponds to the international Unit of the League of Nations Health Organization, the establishment of a definite percentile strength for alcoholic preparations, the inclusion of well-established vaccines, antitoxins, and toxins, and the introduction for the first time of an official dropper, are all of considerable significance to the physician.

The establishment by the Revision Committee of a U.S.P. Vitamin Advisory Board and similar Advisory Boards for anti-anemic products and cardiac drugs, has already resulted in an improvement of the standards for this class of drugs.

It is proposed to keep the Pharmacopoeia up to date by Interim Revisions so that we shall not have to wait ten years for the introduction of certain approved newer remedies. This service to the physician should, if carried through, be a definite aid to the rationalization of therapy. M. H. S.

CANCER

(Continued from page 547)

I have been particularly impressed with the three factors which he gives as influencing the curability of carcinoma of the breast. Namely, the extent of involvement, the inherent degree of malignancy and the method of treatment. We all recognize the one big obstacle to success in this work. It is the failure to get the cases early enough so as to carry out a successful form of treatment. In the cases illustrated, only about 22% came in Group I, which are the early cases.

The inherent degree of malignancy has a direct bearing. This, I am sure, will not be questioned. There are other considerations of secondary importance, such as the age of the patient, the environment of the tumor, the presence of an associated inflammation. These, at least secondarily, influence the outcome.

A discussion such as that to which we have just listened, I believe, will do much to increase the cooperation among the surgeon, the internist, the radiologist, and the patient. This cooperation, I believe, is vitally important to the successful treatment of any malignancy.

I subscribe to the view that the best results are obtained by the use of surgery and radiation.

Recently there has been an unfortunate tendency to diminish the extent of surgical intervention. I doubt the advisability of this attitude and I feel it will reduce our percentage of five-year cures. I believe the best surgical judgment and the best radiological judgment are necessary to increase our percentage of five-year cures. I thoroughly agree with Dr. Portmann that a search should be made for distant metastases before submitting the patient to surgery.

I have included the cooperation of the patient because I believe this is important. I believe the patient should be taken into the confidence of the attending physician. Dr. Portmann did not touch upon his method of therapy, but I know approximately what it is, it is very thorough.

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* *Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154*
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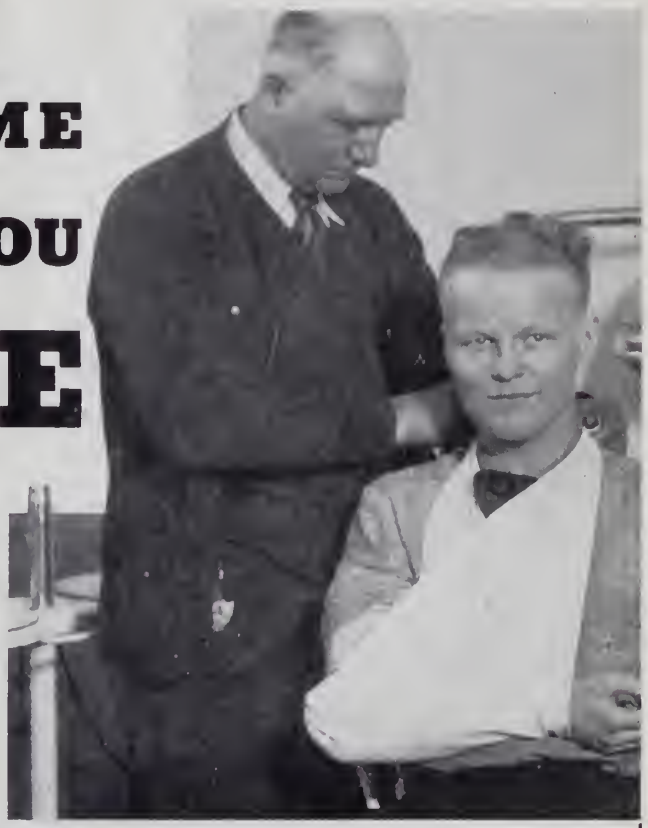

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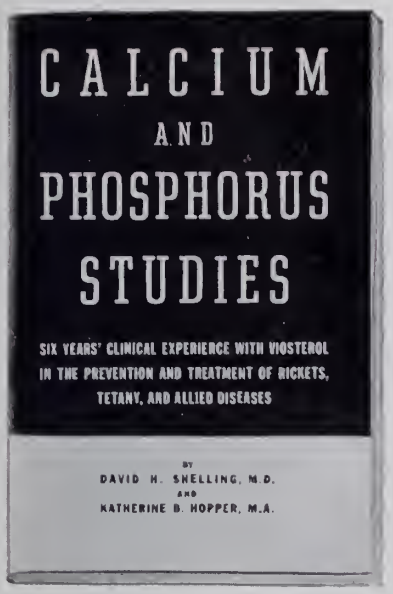

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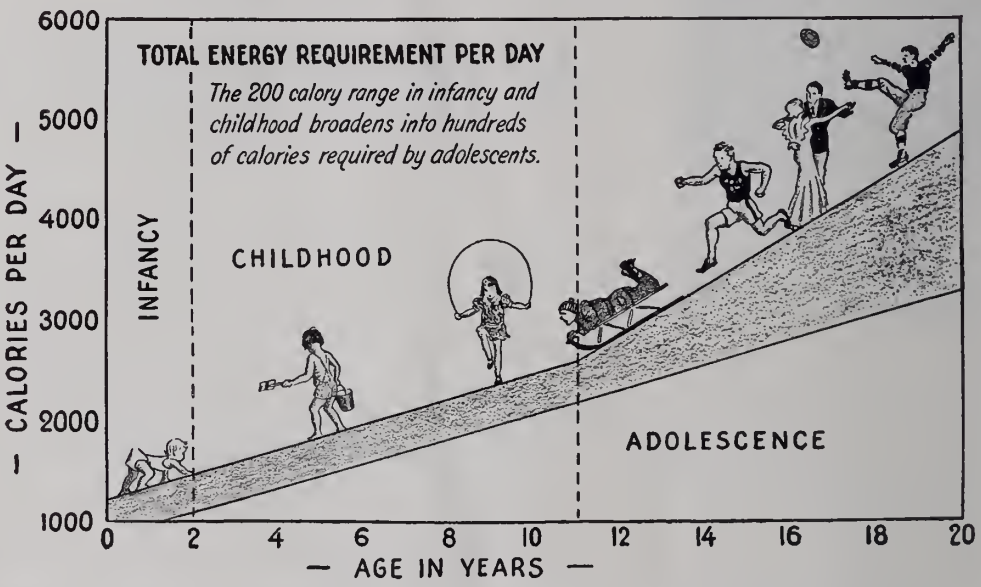

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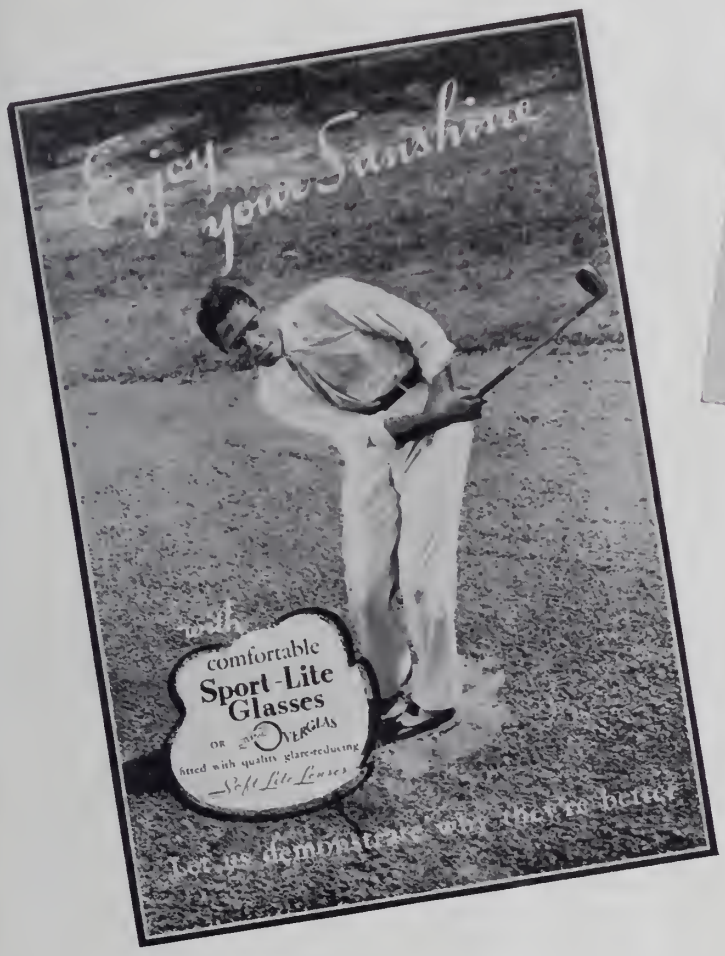

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*Martenstein, H.: Syphilis Treatment: Enquiry in Five Countries, *League of Nations Quart. Bull. Health Organ* 4:129, 1935.

DIARRHEA

"the commonest ailment of infants in the summer months"

(HOLT AND McINTOSH: HOLT'S DISEASES OF INFANCY AND CHILDHOOD, 1933)

One of the outstanding features of DEXTRI-MALTOSE is that it is almost unanimously preferred as the carbohydrate in the management of infantile diarrhea.

In diarrhea, "The sugar is added gradually; conditions admit, some sugar other than milk sugar or cane sugar being used, preferably dextrin and maltose."—*H. E. Small: Diarrhoea in bottle-fed infants, J. Maine M. A. 12:152-158, Jan. 1932.*

In diarrhea, "Carbohydrates, in the form of dextri-maltose, well cooked cereals or rice, usually can be handled without trouble."—*B. B. Jones: A discussion of some of the commoner types of infantile diarrhea, and the principles of the diets used in their treatment, Monthly, 66: 411-[illegible]*

"The most desirable sugar is dextri-maltose, because of all the sugars maltose is least apt to [illegible]"—*A. I. Blau: The use of protein milk [illegible] 119:359, April 2,*

Concerning the treatment of diarrhea, "If the weight remains stationary, it is an indication that loss of substance is occurring through the stools, mostly in the form of alkaline salts. To equalize this loss of substance, the diet must be increased, but in such a way as to avoid causing fermentation. This may be done by adding dextri-maltose and preparations of protein to the food, increasing the calories until the infant is taking 160 calories per kilo. of body weight."—*H. L. Ratnoff: Nutritional disturbances, Arch. Pediat., 41:771 Nov., 1924.*

"It should be remembered that the [illegible] of lactose may cause diarrhoea. It a [illegible] centage of sugar be required it is better to [illegible] it by dextri-maltose, such as Mead's Nos. [illegible] where the maltose is only slightly in excess [illegible] dextrins, thus diminishing the possibility [illegible] cessive fermentation [illegible] *practices in infancy, [illegible] 6:38, 1930; [illegible] April, [illegible]*

"... I begin to add carbohydrates slowly, by replacing ¼ ounce Casec every two days with ¼ ounce of Dextri-Maltose, preferably Dextri-Maltose Number one. As a rule, this is tolerated. When one ounce of Dextri-Maltose is used, the Casec, of course, should be discontinued."—*I. W. Reed: The etiology and treatment [illegible]*

In cases of malnutrition and indigestion, "The appetite improves rapidly, and the stools soon become normal in appearance. If the sugars are intelligently prescribed. By this I refer to proper proportions of dextrin and maltose. Why there is a tendency to looseness, I have used the preparation known as 'dextri-maltose,' for the carbohydrates; . . . —*M. Ladd: Furth[illegible] Homogenized olive oil mixtures, July, 1916.*

"After the preliminary short period of starvation, protein milk should be used. . . . When the diarrhoea has been sufficiently checked, dextri-maltose may be added and gradually increased until from 4 to 6 tablespoons are being used."—*W. L. Denney: Acute nutritional disturbances of infancy, Univ. West. Ontario M. J. 2:132-137, April, 1932.*

Regarding the treatment of diarrhea, "In our experience, the most satisfactory carbohydrate for routine use is Mead's dextrimaltose No. 1."—*F. R. Taylor: "Summer Complaints," Southern Med. & Surg., pp. 555-559, August, 1937.*

"... mostly in [illegible] is loss of substance, [illegible] in such a way as to avoid [illegible] dextri-[illegible]

SERIOUSNESS OF DIARRHEA

There is a widespread opinion that, thanks to improved sanitation, infantile diarrhea is no longer of serious aspect. But Holt and McIntosh declare that diarrhea "is still a problem of the foremost importance, producing a number of deaths each year. . . ." Because dehydration is so often an insidious development even in mild cases, prompt and effective treatment is vital. Little states (Canad. Med. A. J. 13: 803, 1923), "There are cases on record where death has taken place within 24 hours of the time of onset of the first symptoms."

[illegible] treatment of diarrhea, "Dextri-maltose preparations are preferred, for they do not ferment readily, are rapidly absorbed and leave very little for fermentation."—*V. A. Blenkle: Protein milks in infant feeding, Arch. Pediat., 42:743-760, Nov., 1925.*

"When sugar causes diarrhoea one can change the form of it. Mead's Dextrimaltose in small doses is more quickly absorbed and so superior to castor [cane] sugar. Lactose is expensive and seems not to be better than castor sugar."—*H. B. Gladstone: Infant Feeding and [illegible]*

"Milk-sugar, which has been so extensively used in the past, should never be used where there is any digestive disturbance. It is not as easily digested as either cane-sugar (granulated sugar) or dextri-maltose. The latter is the best of all sugars to use, especially if there is any tendency to looseness of the bowels."—*A. Brown: The Normal Child; Its Care and Feeding, F. D. Goodchild Company, Toronto, 1923, p. 120.*

In cases of diarrhea, "For the first day or so no sugar should be added to the milk. If the bowel movements improve carbohydrates may be added. This should be the one that is most easily assimilated, so dextri-maltose is the carbohydrate of choice."—*W. H. McCaslan: Summer diarrheas in infants and young children, J. M. A. Alabama, 1:278-282, Jan., 1932.*

[illegible] tendency to sugar fermentation use a preparation with a high dextrin and relatively low maltose content, as Mead's dextri-maltose."

"If it is desired to feed an unusually large amount of sugar to a baby, it is well to use a maltose-dextrin preparation, as in this way there is less danger of bringing about sugar fermentation than if lactose were used."—*L. W. Hill: Practical Infant Feeding, W. B. Saunders Co., Phila., 1922, p. 206.*

"The young baby's [illegible] ture, usually one-third [illegible] half [illegible] ally skimmed at first, and a half [illegible] We prefer Dextri-Maltose as the carbohydrate most easily digested. . . . Preparations containing the more maltose are more rapidly absorbed, but on the other hand, are more liable to produce diarrhea. . . . Lactose which was very popular at one time, is never used in our work. The consensus of opinion seems to be that milk sugar is often the source of indigestion in normal infants and the primary cause of fermentative dyspepsias [illegible] instances."—*J. H. Reading, Jr.: Artificial [illegible] infant during the first year [illegible] April, 1923.*

"Protein milk may be continued for several weeks when a gradual transition to a whole milk or evaporated milk formula, which will supply about one and one-half to two ounces of whole milk to every pound of body weight, is reached. This also should finally have the addition of dextri-maltose amounting to five to seven per cent."—*K. A. Strong: Summer diarrheas in infancy and early childhood, Arch. Pediat. 47:344-354, June, 1930.*

[illegible] ated as the [illegible] the carbohydrate. It [illegible] ally if given beyond 6 [illegible] rhoea in many infants. [illegible] avoided and if it is de- [illegible] unt of carbohydrate, it is [illegible] actose by dextri-maltose [illegible] best to partly [illegible] and 2). In our view cane-sugar mixtures (Mead's Nos. [illegible] sugar is less suitable than lactose, and if for any reason there is objection to the use of lactose, it is obtained by the addition of carbohydrates, while fat and casein are reduced. For this purpose dextrimaltose and flour are better than the ordinary sugars, since they are more slowly absorbed and have greater efficacy in their powers of controlling the flora in the large intestine."—*W. J. Pearson [illegible] W. G. Wyllie: Recent Advances in Diseases [illegible] Blakiston's Son & Co., Phila., 1930, [illegible]*

For cases of fermentative diarrhea, ". . . the ideal plan of treatment would be to give a food which is low in sugar (the food which that group of organisms thrive on) and high in protein. Calcium caseinate milk accomplishes this purpose. In our series of cases, we found it was necessary to use the casein calcium for from 5-8 days; we then stopped it and added dextri-maltose to the formula."—*A. G. DeSanctis and L. V. Paider: The value of calcium caseinate milk in fermentative diarrhea, Arch. Pediat. [illegible]*

Just as DEXTRI-MALTOSE is a *carbohydrate* modifier of choice, so is CASEC (calcium caseinate) an accepted *protein* modifier. Casec is of special value for (1) colic and loose green stools in breast-fed infants, (2) fermentative diarrhea in bottle-fed infants, (3) prematures, (4) marasmus, (5) celiac disease. *MEAD JOHNSON & CO., EVANSVILLE, IND., U.S.A.*

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VITAMINS IN CANNED FOODS

II. VITAMIN D

• One of the most interesting chapters in the history of the science of nutrition is that relating to vitamin D. It is a record of steady advances in our knowledge concerning the vitamin. Starting with the work of Huldschinsky in 1919 on the ultraviolet irradiation of rachitic children; passing to the classical discovery in 1924 by Steenbock (1) and by Hess (2) that irradiated foods may acquire antirachitic potency; and extending through the profound studies of Windaus (3) and other investigators, on the constitution of the pure vitamin D obtained by ultraviolet irradiation of ergosterol, the story of vitamin D is a story of steady, scientific progress.

As a result of these basic contributions, there are available today a number of excellent standardized carriers of vitamin D. Viosterol, and the fish liver oils, and their concentrates, are readily available for use in the campaign against rickets whose prevalence, especially among infants in large urban centers, still remains high. In addition to these vitamin D carriers, the vitamin D fortified or irradiated foods have appeared within recent years.

It has become increasingly evident that there are a number of compounds which may promote calcification in the various animal species. It is further evident that these compounds vary in their physiologic efficiency with various animal species, or that they are "species specific". A number of forms of vitamin D have been postulated (4) and much research in the vitamin D field has been directed toward their isolation and identification.

In general, natural foods have never been regarded as important sources of vitamin D. The commonest food articles show extremely low antirachitic potencies when measured by conventional methods. However, recent evidence has been offered that the contribution of vitamin D made by a varied diet of canned foods may be more significant than has heretofore been supposed (5). While common foods admittedly cannot supply the high demands of infancy and childhood or other phases of the life cycle, for vitamin D, it would appear that they may supply significant amounts of the vitamin to the diet, especially in the case of the adult human, concerning whose quantitative vitamin D requirement comparatively little is known.

Biological research has shown that canned marine products such as salmon, shrimp, and oysters (6) make a small but definite contribution of the antirachitic factor to the diet. We desire to direct the attention of our readers to these interesting facts about canned foods in general, and these canned marine products in particular.

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(1) 1924. J. Biol. Chem. *61*, 405
(2) 1924. J. Biol. Chem. *62*, 301
(3) 1932. Ann. 492, 226
(4) 1935. Physiological Reviews *15*, 1-97
(5) 1934. Ind. Eng. Chem. *26*, 758
(6) a. 1935 J. Home Econ. *27*, 668
b. 1933. Science, *78*, 368
c. 1926. Wis. Agr. Expt. Sta. Bul. *388*, 124

This is the fifteenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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Aseptic Necrosis of the Head of the Femur*

By FREMONT A. CHANDLER, M. D.
Chicago, Illinois

THE normal physiological functioning and survival of body tissues and cells is dependent upon an adequate flow of intercellular fluid. This, in turn, is dependent upon an adequate blood supply of both the arterial and venous systems. In most parts of the body nature has provided liberal anastomoses between the various component parts of these vascular systems and in so doing has provided a wide margin of safety to most tissues, enabling them to compensate for all but the most extensive interruption of the vascular flow. Those areas which are less liberally supplied with vascular anastomoses necessarily have lower factors of safety and become more vulnerable to the effects of vascular interruption.

When vascular anastomoses are widespread as in congenital arteriovenous fistulae or in extensive naevus formation, tissue growth is accelerated. When blood supply is insufficient because of impaired venous return, physiological processes are impaired, tissues degenerate both physiologically and structurally, producing the pathological picture of necrosis in all its stages. Similar changes are observed following trauma, overexposure to roentgen rays and radium, and in some forms of chemical poisoning.

The significance of limited blood supply is revealed in the numerous vascular accidents seen in routine medical practice. Chronic or acute restriction of the coronary circulation of the heart results in a wide variety of pathological changes in the areas supplied. Fragmentation of the heart muscle fibers, hyaline degeneration, fibrosis, calcification, etc., are seen in unending degrees at autopsy and evidence of altered physiology is seen in the living. The limited anastomosis of the coronary vessels has reduced the factor of safety to almost nil.

The restriction of circulation to the brain following embolic, thrombotic or other pathological process, results in the impairment of physiological functions of the area involved. Local necrosis or softening is present in the brain substance. Because of limited anastomosis, the tissues of the lung periphery become vulnerable and infarction is common. Similar changes are seen in the liver, spleen, kidneys and mesentery where the blood vessels simulate end-arteries. The areas of infarction of these tissues heal by fibrosis.

Obstruction of the venous return in the absence of free anastomosis may likewise result in degenerative changes in the involved tissue.

Bone must not be considered an inert substance, but one of the most specialized tissues of the body, consisting of active cells which respond promptly to the physiological demands upon the skeletal and hematopoietic systems. These cells are sensitive to nutritional and functional processes and differ in their reaction only because of the rigidity and stability of the rigid intercellular deposits of mineral salts. The response of the intercellular substance lags behind that of the cellular physiology to some degree because of its dense rigid character. Bone atrophy, sclerosis, and callus formation are common examples of this response. Bone is ideally constructed to withstand the chief functional demands upon it, that of resistance to compression as in weightbearing and resistance to traction as in muscle pull. Free transplants of tibia will be absorbed if placed in an environment free of compression strain, but will survive when this strain is present.

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* Presented before 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, September, 1935.

The circulation of bone is sufficient to supply the normal variations of physiological processes, but often fails to respond to the extreme insults of trauma or infection. The delayed union in the comminuted bumper fracture of the tibia or the extensive involvement of the shaft of the long bones in osteomyelitis are classical examples. Vascular anastomosis is limited by two factors, first, the absence of large intercommunicating vascular channels and, secondly, the constriction of the existing channels by the rigid bone structure. When end arteries are present, as at the metaphyseal side of the epiphyseal plate, infarction is common. Aseptic infarction is found in nutritional diseases as scurvy and rickets and septic infarction with abscess formation in tuberculosis and other forms of bacteraemia.

A brief review of the embryology of bone formation may be of interest.

BONE DEVELOPMENT

According to Keith each limb bone is formed from a center of chondrification which appears in the second month within the unjointed skeletal blastema of the limb bud. These cartilage cells grow peripherally approaching adjacent centers. The portion of the blastema remaining between these centers forms the interchondral disc, the basis of the true joint formation. The axial blastema condenses at its periphery forming the perichondrium. In the eighth or ninth week, joints form by the development of synovial spaces which spread toward the center of the joint. The perichondrial bridges the periphery of the joint becoming the capsular ligament. The synovial membrane of cartilaginous origin develops. Nutrient vessels enter the diaphysis and each end of the long bones. These areas are separated by the development of the epiphyseal plate which is not penetrated by blood vessels until it disappears on completion of growth. The epiphysis receives its nutrition from blood vessels which enter it at the epiphyseal line at which the capsule is originally attached. As the demands of muscle leverage and range of motion develop, migration of the capsular attachment occurs. This is most marked at the upper end of the femur where the capsule is attached along the lateral portion of the femoral neck distal to the epiphyseal line. The blood vessels, however, persist in folds of synovial tissue extending to the epiphyseal line. The portion of the diaphysis which projects beyond the capsular attachment assumes many of the characteristics of the epiphysis most important of which is the loss of osteogenetic function in the periosteum of these areas. This is seen in the total absence of subperiosteal callus in intracapsular fractures of the femoral neck.

During the course of the development of the head of the femur to comply with the demands of weightbearing and wide range of motion, the articular surface surrounds a considerable portion of the capsule isolating it to form the ligamentum teres. Included in this unique structure are varying numbers of blood vessels supplying the proximal portion of the femoral head. Incomplete inclusion of this portion of the capsule gives rise to the reflected ligament which is normal in reptiles. A similar migration of the articular surfaces is seen in the acetabulum. It is, however, incomplete as shown by the persistence of the incisura acetabuli and transverse ligament.

Contrary to the popular belief, the vascular supply afforded the head of the femur by the ligamentum teres, Klodny, S. W. Chandler and Kreuscher, Wolcott and others have demonstrated the presence of vessels in sufficient number and size to be a potent factor in the nutrition of the central portion of the head of the femur. S. W. Chandler and Kreuscher examined 114 ligamenta teres from adults with an average age of 48 years. 86 ligaments contained vessels varying from .2 mm. to 1.5 mm. in diameter. Four ligaments were relatively avascular. The others revealed small vessels or obliterating vessels.

The head of the femur, before fusion of the epiphysis, receives its blood supply through the branches of the cervical vessels which lie in the folds of reflected synovia along the femoral neck and from the vessels of the ligamentum teres. After fusion of the epiphysis at the conclusion of growth, small vessels of the femoral neck anastomose with those of the femoral head. The venous supply of the femoral head closely follows the arterial. One factor, influencing venous return, which

has not been emphasized is that of the potential negative atmospheric pressure within the hip joint. Such negative pressure preserves the lumen of the veins. The positive pressure resulting from effusion within the joint capsule may well be a factor in the impairment of the circulation of the intercapsular portion of the femoral neck and head by damming the vascular return. The application of this principle in intracapsular fractures of the femoral neck is obvious.

The reaction of the femoral head to complete and incomplete interruption of its blood supply is the same as in any area with limited anastomotic connections. The cellular element shows early alterations. Osteoblastic cells disappear from their position along the bone trabeculae which surround the marrow spaces. The marrow spaces are filled with a fine precipitate of necrotic material or with fibrous tissue. The bony trabeculae gradually absorb and fracture under the pressure of weightbearing or muscle pull. These reactions may be distributed throughout the substance of the femoral head producing the appearance of cysts in the roentgenogram or they may be massive causing the femoral head to appear as a sequestrum with increase of density as shown in the roentgen film. New bone slowly fills in about the trabeculae in those areas invaded by capillaries from adjacent viable areas.

Complete obliteration of the vessels of the ligamentum teres results in infarction of the area, near the fovea centralis, which is dependent upon it. Bone death occurs and the area involved separates from the adjacent viable tissue forming a sequestrum. Should the blood supply be only partially obliterated, the necrosis of bone may be incomplete and scattered throughout the femoral head combining zones of necrosis with areas of repair. As new sources of nutrition develop from adjacent areas an attempt at replacement of bone tissue occurs. If the immediate environment is vascular, this process is rapid and more complete; if avascular, repair is slow and limited. Phemister has given the term "creeping substitution" to this process of replacement of necrotic bone.

In the head of the femur, replacement of necrotic bone is slow and often incomplete. This leaves the head of the femur structurally weak and unable to withstand the strain of superimposed weight; collapse follows.

In bone necrosis associated with infectious processes, sequestration or bone absorption occurs. The process of replacement does not take place when the infection is of the lowest grade.

Aseptic necrosis of the head of the femur is of high incidence following intracapsular fractures of the femoral neck and probably accounts for many of the unsatisfactory results. The anastomoses of the cancellous bone of the neck, of the ligamentum teres or the periosteal vessels is impaired and necrosis follows. Similar changes follow tearing of the ligamentum teres in traumatic dislocation as well as in congenital dislocations of the hip. Trauma, acute or chronic, to the ligamentum teres without fracture or dislocation is sometimes seen. Embolic or thrombotic processes involving the ligamentum teres, result in more or less complete necrosis of this area. Legg–Perthes' disease and air embolism in caisson disease, described recently, show similar changes in the femoral head.

Aseptic necrosis is encountered elsewhere in the skeleton in locations where vascular supply is limited. Kienböck's disease of the carpal semi-lunar bone, nonunion of fractures of the carpal scaphoid, Köhler's disease of the tarsal scaphoid and osteochondritis dissecans of the medial condyle of the femur show these pathological changes.

TREATMENT

The treatment of aseptic necrosis of the head of the femur calls for prolonged protection from compression strain during the slow process of revascularization and bone replacement. The end results of fractures of the femoral neck should not be evaluated until the effects of altered blood supply have passed; probably not for a four or five year period. A more radical course of treatment is the excision of the necrotic head and the use of one of the reconstruction operations to reestablish weightbearing or by fusion of the hip joint.

Fig. 1, Case 1. Roentgenogram of left hip showing cystic areas. Deformity secondary to aseptic process at head of femur.

CASE REPORTS

Case I. J. L., a white male 33 years of age, entered the hospital December 6, 1934, complaining of the following symptoms:

Pain in both hips, radiating to the knees, of three years' duration, worse on the left.

Stiffness in both hips of three years' duration.

The patient had always been strong and active. The last five years his occupation had been that of a salesman and also helped to carry the forequarters of beef.

The first thing noticed was difficulty in stepping up curbs about three years ago. He then began having pains in both thighs and knees, worse on the left. This pain was worse in the morning and while walking. Later he had pains in both hips and began walking with a limp. The pain and stiffness have gradually become worse until at the present time he has great difficulty in walking at all. Changes in the weather have no effect on the pain. No history of acute trauma at any time.

Past History. Surgical and medical negative.

Family History. Negative.

Inventory by Systems. Negative.

Physical Examination. Well developed and well nourished white male of 33 years of age.

Walks with waddling gait, moving the hip joints as little as possible. The left leg shows this more markedly than the right.

Head—Negative.

Eyes—Negative. Pupils react well.

Teeth—In very poor condition. Many carious and broken off.

Tongue—Slightly coated.

Throat—Rather markedly injected about pillars and uvula.

No cervical adenopathy.

Slight smooth thyroid enlargement.

Chest—Symmetrical. Expansion good and equal.

Lungs—Clear and resonant throughout.

Heart—Rhythm regular. No enlargement, no murmurs.

Abdomen—Soft and flat. No tenderness nor masses. Liver and spleen not palpable. No hernia.

Extremities—Uppers: normal; lowers:

Measurements	*Right*	*Left*
Length	32″	32¼″
Flexion	60°	60°
Extension	180°	180°
Abduction	15°	5°
Adduction	40°	40°
Internal Rotation	15°	30°
External Rotation	10°	15°

Fig. 2, Case 1. Operation of left femur after excision of femoral head.

Pain on motion of legs in all directions, especially in left hip.

Limitation of motion due to pain in all directions, but most marked in abduction.

Reflexes—All present. No pathological.

Gait that of partial ankylosis of both hips.

Diagnosis. Aseptic necrosis of both hip joints.

Blood Report: 12–7–34. R.B.C. 4,330,000; W.B.C. 6,050; 78% Hb., or 16.6 gm.; 2′ 45″ coag.; and 1′ bleeding time.

X-Ray Report: 12–8–34. A.P. of Pelvis. "The superior surface of the acetabular cavity is thickened and flattened on both sides. Also the superior lips of the acetabular cavities are thickened and irregular. The head of the right femur is flattened and irregular. There are areas of bone destruction and areas of bone proliferation. One gets the impression that the remaining portion of the head is flattened and there are definite osteophytes extending downward and upward in the region of the neck of the right femur. One gets the impression that there is some dead bone, probably due to an absence of blood supply. The changes in the head of the left femur are quite similar to those of the right. I believe, however, there is more destruction than in the right. There is a large osteophyte involving the superior surface of the neck of the left femur, which is apparently old.

"From the x-ray findings, I believe the changes in both hips are quite identical and may be due to either an old infection, proliferation and bone destruction or possibly some disturbance in the blood supply."

—E. L. Jenkinson, M.D.

Wassermann: 12–8–34. Acetone antigen; cholesternized antigen—negative.

Kahn. Negative.

Consultation—Oral Surgery—Dr. Potts: 12–9–34. "Has several roots, some of which have infections at the apice (x-ray). All of these should be extracted. Has gingivitis due to calculus.

"Extraction of infected teeth of lower jaw by Dr. Etzler—12–10–34."

Blood Chemistry: 12–10–34.

Urea Nitrogen	16.8 mgm.	100 cc. blood
Total N.P.N.	38 mgm.	" " "
Sugar	93 mgm.	" " "
Calcium	11.2 mgm.	" " "
Inorg. Phosphorus	3.2 mgm.	" " "

Differential Blood Count: 100 cells counted.

Lymphocytes	37
Monocytes	9
Neutrophile	52
Eosinophile	1
Basophile	1

Local Tonsillectomy: 12–11–34. Both tonsils contained small abscesses in the upper poles.

Stool Cultures Report: 12–12–34. Medium light growths of colonies of staph. hemolyticus. No organisms from the typhoid; dysentery groups. Benzidine ++ ++; Weber +++. (Not meat-free diet.)

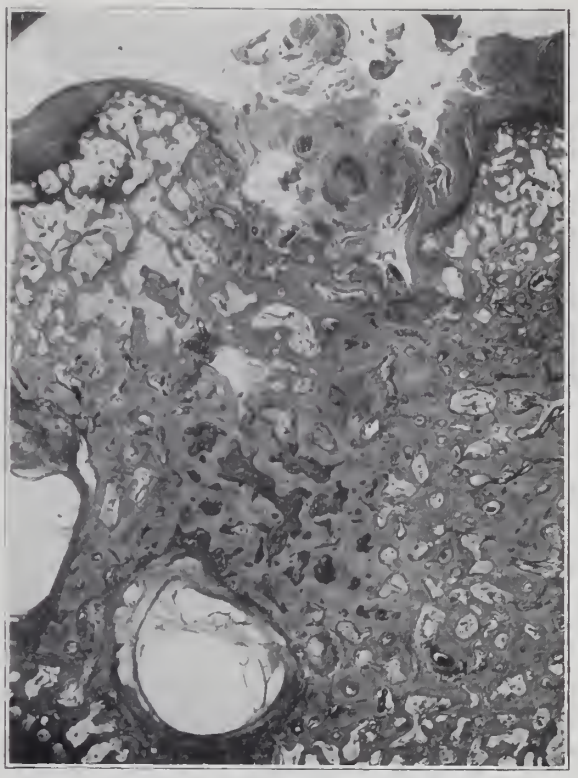

Fig. 3, Case 1. Photomicrograph of excised head through fovea centralis, showing aseptic process with areas of regeneration.

Remaining extractions: 12–14–34.

Stool. No amoeba.

Sedimentation Rate of Corpuscles of Blood. A 21 mm. drop in 1 hour.

Electrocardiogram. Sinus rhythm. Of R. S. complex slurred in all leads.

—N. C. Gilbert, M.D.

Phenolphthalein Test: 12–17–34.

	I	II	III
Urine volume	35 cc.	40 cc.	40 cc.
% dye excreted	50%	15%	5%

Stool Report. Light growth of colonies of staph. hemolyticus. No organisms from the typhoid-dysentery groups.

Vascular Studies: 12–17–34.

Room T.: 26.8°C.

	Right	*Left*
1 =	1.2 = 32.4	.5 = 31.8
2 =	2.3 = 34.1	3.0 = 35.0
3 =	4.2 = 36.6	4.2 = 36.6
4 =	4.2 = 36.6	4.4 = 36.9
5 =	4.4 = 36.9	4.6 = 37.2
6 =	4.4 = 36.9	4.6 = 37.2

Blood P.: Leg	170/110	168/100
Arm	148/96	138/84
Record:	I	II
Heat	45°	10°
Record:	III	IV
Pulse	84	

Stool Report: 12–18–34.
Benzidine ++++ on meat-free diet 3 days.
Weber ++ prior to above test.

	I	II
Olmstead—volume	13 cc.	65 cc.
Sp. gr.	1.015	1.005

Stool Report: 12–20–34. No amoeba found in direct smears or cultures.

Reconstruction Operation on Left Hip: 12–26–34. Incision: Tensor fascia lata cut across and retracted. Greater trochanter exposed and separated from shaft with a chisel. Head separated from neck and removed intact. Ligamentum teres cut at acetabulum. Not ligated as there was no bleeding from the cut end. Stump of neck, smoothed and rounded with bone biting forceps and neck set in acetabulum. Periosteum elevated, lower on the shaft of the femur and new bone exposed with a chisel. Greater trochanter placed about 1″ lower on the shaft in this exposed area. Trochanter anchored in place with kangaroo tendon. Closure with interrupted plain catgut and interrupted black silk to the skin. Dry dressing. Single hip spica with leg abducted.

Walking on crutches: 1–21–35.

X-Ray Report: 1–22–35. Left Hip. "The head of the left femur has been removed and the proximal third of the left femur is located in the acetabular cavity. The proximal end of the femur is quite smooth. The greater trochanter has been moved downward in contact with the femur. The anatomical relation are quite staisfactory. I believe this is a very satisfactory result."

—E. L. Jenkinson, M.D.

Reconstruction Operation on Right Hip: 2–1–35.

Pathological Report: 12–26–34.

"Chronic infarction (aseptic necrosis) with sequential stages of injury and incomplete repair of the head of the left femur."

—Dr. E. Hirsch.

"This ligamentum teres is markedly hyperemic. It is 5 cms. long and has been torn out of the fovea, tearing with it a piece of cartilage and fibrous tissue 1 by 1 by 0.2 cm.

"(A) After the bone had been fixed in formalin, it was cut at right angles through the lip tissue overhanging the fovea. A piece for histological examination, 5 to 7 mm. wide, was taken through the fovea, and another, an equal thickness just in front of the fovea. The overhanging lip of tissue has a thin surface of articular cartilage, but most of the material is compact bone with dense trabeculae varying in width. The enclosed small marrow spaces contain either fatty areolar tissue alone or fatty areolar and fibrous tissues. As illustrated by the photographs, there are pockets ranging in diameter to as much as 1 cm., or slightly larger, distributed in the peripheral portions of the head and these pockets having no regular distribution are encapsulated necrotic tissue reduced to a granular precipitate, or being fibrous tissues, dense as in a scar or edematous. Along the periphery of these foci are some irregularly arranged bone trabeculae. Otherwise the bone structure varies mainly in its compactness. Some portions, especially under the fovea and under the displaced articular cartilage, are compact and dense. The deeper portions approach more nearly the pattern of normal bone. The marrow spaces contain fatty areolar or fatty areolar and fibrous tissues. The sections at some levels through the protruding lip tissues demonstrate a second layer of cartilage underneath a thin plate of bone on the surface.

"Histological preparations of the ligamentum teres at different levels were made. The bulk of the tissue in the center is dense fibrous. The peripheral portions are less dense and are like synovial membrane. In some of these superficial and deep tissues are recent hemorrhages. The blood vessels have thick muscular and fibrous walls. Their lumens are small and some, particularly of the large variety, have a marked subintimal and intimal fibrous tissue thickening so that the lumens are reduced to small slits or crevices. Around a few of the small blood vessels are narrow collars of lymphocytes. The larger arteries have thick muscular walls. The blood vessels have thick walls, especially some of the large arteries or their divisions."

—Edwin F. Hirsch, M.D.

COMMENTS

This case presents a rather unique picture, inasmuch as the patient is only 33 years of age. There is no history of abrupt trauma but it is entirely possible that his work called for rather heavy lifting and this may have been a factor. The general study of the vascular system revealed no important findings except for some elevation of the blood pressure, the changes of the heads of both femurs and that of incomplete interruption of the blood supply rather than a total occlusion of the blood vessels.

The pathological picture of the blood vessels of the ligamentum teres is somewhat suggestive of that of a localized Buerger's disease, showing changes which are probably due to a revascularization of a thrombus rather than an obliterating arteritis.

Case II. J. W., a white male, forty-four years of age, was admitted to St. Luke's Hospital on December 1, 1932, complaining of pain in the left hip and left knee. This pain started abruptly on the morning of January 1, 1932, and remained severe for three days. Since then it has been intermittent during the past eleven months and changes in the weather have aggravated it. The pain has not been especially severe in the morning. The patient has favored the left leg and, although it has been difficult

Fig. 1, Case 2. Aseptic necrosis with infarction and subsequent sequestration of the head of the femur.

to do so, the patient has been able to walk. No history of trauma.

Past history negative except for influenza in 1919.

Physical findings negative except for left leg.

There is no limitation of motion in left hip or knee. On extensive flexion or abduction of the left hip, the patient complains of some pain in the joint and at the upper and inner aspect of the thigh. The left knee is freely movable without pain, excepting on hyperextension.

Reflexes: Patellars not elicited; biceps not elicited; Babinski negative; abdominal present. On walking, the patient has a definite limp, favoring the left leg. The muscles of the left thigh and buttock are moderately atrophied.

Measurements:

	Right	*Left*
Ant. spine—Int. Wall	37¼	37½
Umbilicus—Int. Wall	39¼	39½
Great Troch.—Ext. Wall	(34½	33¾) ?
Circumference of Thigh	19½	16⅝
" of Knee	14¼	14
" of Calf	13	12¾

Impression: Arthritis involving the left knee and left hip.

Laboratory Reports:

Urine on admission—20 mg. alb. 12–2–32.
1–3 R.B.C. per H.P.F.
Otherwise negative.

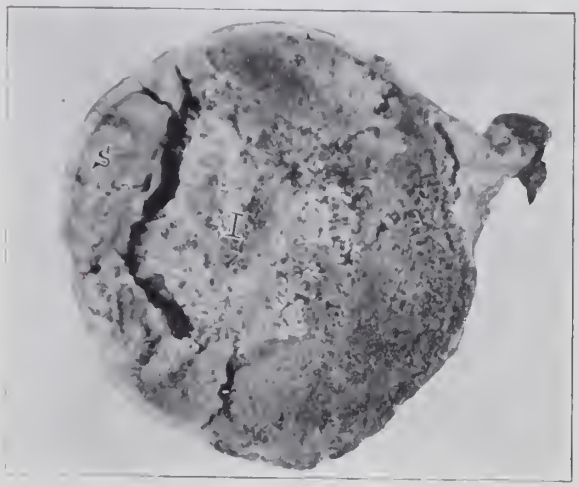

Fig. 2, Case 2. Cut surface of resected head of femur showing sequestrum (S), and infarcted area (I), after occlusion of blood vessels of ligamentum teres.

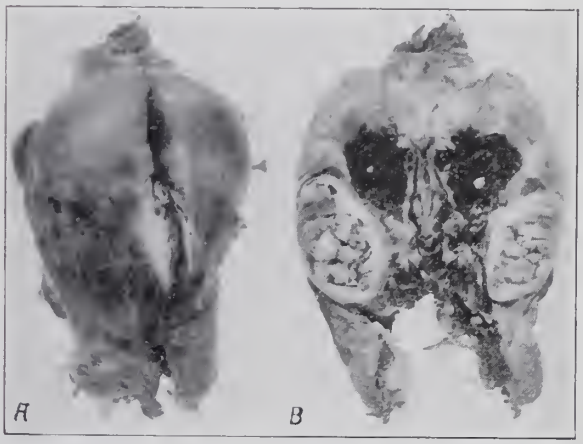

Fig. 3, Case 2. Ligamentum teres, left hip. A. External appearance. B. Sectioned in midline.

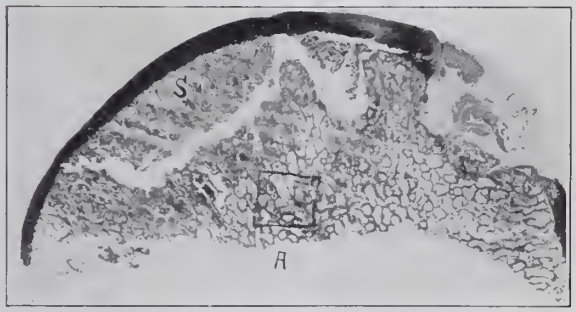

Fig. 4, Case 2. Section of femoral head, showing extensive aseptic necrosis with sequestrum, (S) formation.

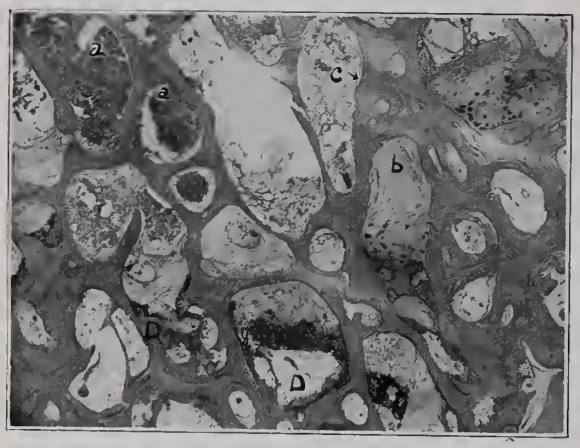

Fig. 5, Case 2. Enlargement of area "A," Fig. 4, showing granular precipitation in marrow spaces "a," fibrous invasion of marrow spaces "b," absence of cells at "c," and new bone formation at "d."

Phenolphthalein Test: 12-10-32.

	1st hr.	*2nd hr.*	*3rd hr.*
Urine vol.	230 cc.	220 cc.	120 cc.
Per cent dry excreted	30%	10%	5%

Blood Count: 12-2-32. R.B.C. 4,480,000; W.B.C. 6,850; Hb. 87%.

Blood Chemistry: 12-7-32. Calcium 10.6 mgm. per 100 cc. blood; inorganic phosphorus 3.3 mgm. per 100 cc. blood.

Kahn and Wassermann. Negative.

Bacteriology: 12-4-32. Fluid from left hip. Gram stain—numerous R.B.C.; few W.B.C.; no organisms. Ziehl-Neelsen—no acid-fast bacilli seen. Cultures—no growth in 48 hours.

X-Ray Report: 12-3-32. Rarefaction involving the proximal third of the left femur. There is a circular area of increased density. A portion of the upper and outer half of the left femur can still be outlined; if anything, it is depressed slightly downward. This portion of the bone is probably dead and is acting not unlike an osteochondritis dissecans.

On December 14, 1932, patient was operated on, a Whitman reconstruction of the left hip being done. At operation, about 30 cc. of straw-colored fluid was present in joint.

The cartilage of the head of the femur was depressed anteriorly and was discolored due to the change in the underlying bone. Along the lower rim of the acetabulum, there was some erosion of cartilage from an area about 2 cm. in diameter. The ligamentum teres was dark red in color and was swollen to about ten times its normal size.

The great trochanter was removed with its attachments and was fastened on the femur about ¾" below its normal site.

Fig. 6, Case 2. Photomicrograph of longitudinal section of ligamentum teres showing cystic degeneration following occlusion of arteries.

Following operation, the leg was put up in extension and abduction with about 14 lbs. traction.

Patient made an uneventful recovery. Traction was removed on January 8, 1933. On January 21, 1933, patient was up in wheel-chair. He complained

Fig. 7, Case 2. Cross section of ligamentum teres. Note absence of blood vessels and obliteration of the artery lumen "A."

of some pain in hip, but it was not severe. On January 29, he was up on crutches and on February 10, 1933, he was discharged.

Pathological Examination: "Aseptic necrosis and sequestration of the tissues of the head of the femur; marked edema, focal necrosis, and extensive recent hemorrhages of the ligamentum teres."

—Dr. E. Hirsch.

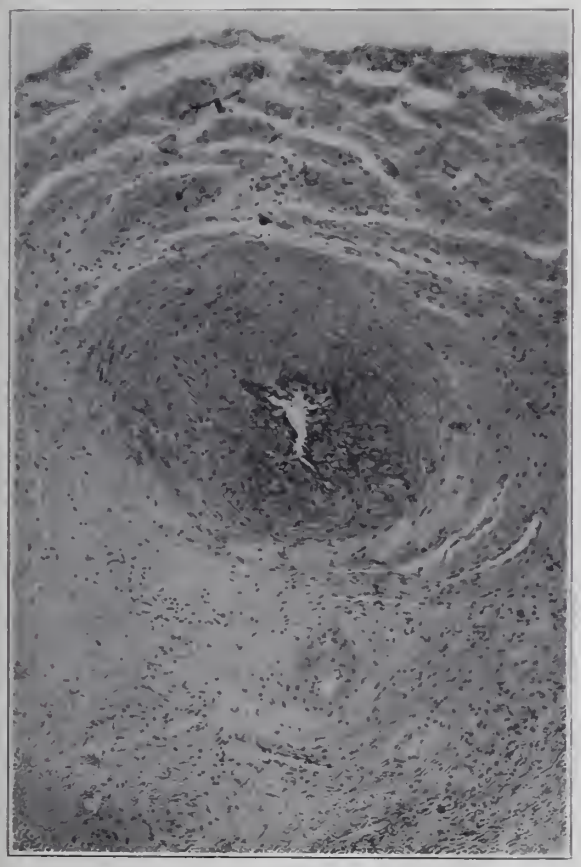

Fig. 8, Case 2. Enlargement of cross section of artery shown in Fig. 7. Note hypertrophy and fibrosis of muscularis.

COMMENTS

This case presents a picture of total occlusion of the vessels of the ligamentum teres with the resulting infarction and necrosis of the area supplied by this artery. The sudden onset is not unlike that of coronary occlusions. Although search was made for possible sources of embolism, none could be found. Here again the picture is that of extensive degenerative changes of the ligamentum teres and evidence of revascularization through thrombotic vessels.

The head of the femur has a limited blood supply and consequently is subject to degenerative changes when this is interrupted.

Healing occurs only when revascularization takes place.

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DISCUSSION

F. J. Gaenslen (Milwaukee): Doctor Chandler has reviewed the subject of aseptic necrosis of the head of the femur in a masterly manner, emphasizing the importance of anastomosis in tissues generally as a factor of safety in the maintenance of nutrition in the event of injury. He has also reviewed for us the important points in the embryology, with special reference to the blood supply. He reported two cases of very great interest; one in which trauma may well have played a part in producing incomplete interruption of the blood supply, probably as a result of thrombosis, and another in which there was thrombosis with total occlusion of the vessels of the ligamentum teres with resulting partial necrosis of the head.

I have had no similar experiences and believe that cases of this type must be extremely rare. I have seen aseptic necrosis only as a result of injury, most frequently in intracapsular fractures of the neck of the femur, several times in traumatic dislocation, now and then in congenital dislocation, in which deformity resembling that seen in Perthes' disease is found, and finally in arthroplasty, where the ligamentum teres must be sacrificed as well as the periosteal vessels to the neck, at least in large part. My remarks here will be confined to the type found in fractures of the neck of the femur because this occurs not infrequently and because it must be reckoned with from the standpoint of treatment. As Doctor Phemister has pointed out, and as Doctor Chandler has so well shown on the screen, aseptic necrosis does not become evident until several months after injury when it is recognized by the marked density of the head as contrasted with the neighboring bone, which shows the atrophy of disuse. No doubt the necrosis occurs very promptly, no one knows how soon but probably within a few days after injury. Doctor Chandler is the first, so far as I know, who has pointed out that venous stasis, due to increased intra-articular pressure from effusion or hemorrhage, may cause aseptic necrosis. In my experience aseptic necrosis of the head is much more common in cases of non-union than it is in impacted fractures or in cases which are spiked promptly. The explanation for this I believe is as follows: the femoral head receives its nutrition from the ligamentum teres, from the periosteal vessels and from

the endosteum of the cancellous tissue. If reduction is late or if it is incomplete, or on the other hand if there is incomplete fixation, allowing movement of the fragments one upon the other, it is more than likely that the blood supply from all three sources named will be interfered with. A tilted head means stretching of the ligamentum teres with very likely damage, possibly thrombosis, to its vessels. If reduction is incomplete there can be no repair either of the torn periosteum or of its vessels. Neither can new capillaries grow across the fracture line to restore circulation. In impacted fractures there is usually very little tilting of the head and scarcely any stretching of the ligamentum teres, so that thrombosis of the vessels will probably very rarely result. The periosteum is not torn, or, if it is, complete immobilization of the fragments due to the impaction allows rapid repair, and finally, while there is crushing of the cancellous structure at the line of fracture and therefore damage to the blood spaces there is again an opportunity of rapid crossing of the zone of damage by new capillaries. It is probable, I believe, that this bridging of the fracture line by capillaries is very prompt. Even if partial necrosis should occur as a result of trauma the repair process is so rapid and so uninterrupted that massive necrosis does not take place. The same holds true, I believe, for early spiking. If reduction is adequate capillary bridging of the periosteal tear and of the fracture line by new capillaries may be expected to be prompt. Possibly some of the vessels in the ligamentum teres may escape the fate of thrombosis. Intracapsular pressure is reduced because the bone fragments do not rub one against the other as a result of muscle spasm. Exudation and hemorrhage cease and absorption of exudate proceeds rapidly thus reducing the intra-articular pressure and reducing the venous stasis, which could well impair the circulation.

I don't ask you to agree with all this speculation, but, until contrary evidence is adduced, it does help to explain observed facts. In a series of seven cases of impacted fracture of the neck of the femur not a single case of aseptic necrosis was observed, nor was it observed in our cases where spiking was successfully practiced soon after the fracture.

I wish to thank Doctor Chandler for his very interesting and highly scientific presentation.

Dr. John W. Powers (Milwaukee): It would be a platitude to say that Dr. Chandler has presented this subject in his usual scholarly manner.

Several years ago, Dr. Arthur Legge of Boston showed me a series of x-rays of congenital hips that had perfectly normal femoral heads until after reduction, at which time, about a year or more later, distortion of the head began to appear, showing the vulnerability of the circulation of the head.

One can anticipate instances of aseptic necrosis of the head of the femur in subcapsular fractures and a higher incidence in fracture dislocations of the hip.

It is my opinion that in the treatment of these fractures and dislocations direct weight bearing should be avoided for at least six months. A caliper splint should be worn by the patient, and x-rays of the hip carefully studied before the caliper be abandoned. If this condition is recognized early and the patient is put on a caliper during the process of regeneration, not infrequently a useful hip will result.

In the selection of a method of treating un-united fractures of the hip, this condition must be kept in mind. I have seen several cases of aseptic necrosis follow two years after the Albee bone peg operation for the treatment of un-united fracture.

Water Balance of Sick Patients*

By FREDERICK A. COLLER, M. D.
Ann Arbor, Michigan

PROBABLY my most acute interest in the matter of water balance occurred when I was twelve years of age, when an operation was done on my frontal sinus. I had been given large doses of castor oil for two nights previous to the operation, and the anesthetic was ether. I still have the most vivid recollections, on awakening the evening following the operation, of my desire for water. They would not give me any because they were afraid it would do harm, but what harm I do not know. At midnight the nurse left the room. Some kind friend had sent me a large vase of flowers. I jumped out of bed, threw the flowers out of the vase, and drank the water. My suffering was relieved and from then on my convalescence was uneventful.

Any of us will maintain our water balance if we eat and drink in response to hunger and thirst. Oftentimes the sick patient, because of an operation or because of serious disease, cannot use the gastrointestinal tract to ingest water, and fluid must be given parenter-

* Read before the 94th Anniversary Meeting of the State Medical Society of Wisconsin, Milwaukee, September, 1935. From the Department of Surgery, University of Michigan.

ally. In these situations, the amount of fluid is governed by the physician.

For a great many years I was impressed with the fact that I did not know exactly how much fluid to give these patients. The internist would say, and I would likewise say, two or three liters. I was conscious of the fact that my answer was on empirical grounds only, that I had no data on which to make a truly quantitative reply. Therefore, about three years ago, Dr. Maddock and I began, in the University Hospital, studies which are still being carried out, to see whether we could find something more definite about the water balance of these patients, and to determine whether we could not estimate rather more accurately than our guesses had been in the past exactly how much fluid a surgical patient needs. I shall now go over with you some of the work we have done. Some of it has been published.

About seventy per cent of the body weight of the individual is composed of water. Water enters the gastro-intestinal tract and is eventually distributed to three compartments: the vascular fluid, the interstitial fluid, and the cellular fluid. The amount of fluid that can be available to the individual in emergencies lies largely in the interstitial spaces of the muscles and subcutaneous tissue. Cellular water is considered to be given up only under conditions of dire distress.

A comparison of the fluid intake with the urine output fails to give a complete picture of normal water exchange. We take in fluid as water, tea, coffee, and so forth. The amount drunk is generally greater in hot, humid weather when the sweating loss is high. Water is also available from food, whether this food be the diet eaten or body tissue burned for energy, as in the case of the starving patient. Water becomes available from food in two ways. In the first place, its water content is generally high, varying from 60 to 80 per cent of the total weight of the solid food eaten; and then a certain amount of water is formed on the oxidation of the constituent proteins, fats, and carbohydrates. Suffice it to say that from the two sources 90 per cent of the total weight of the food eaten is available as water. The average house diet of a hospital will furnish in this way 1.5 liters a day, and the average soft diet will run about 500 or 600 cc. a day. This is a matter of considerable importance to the sick patient about whom we are talking, because, not being able to eat and having to use his own body tissue for food, he seldom gets more than 400 cc. of water daily from this source.

Water is normally excreted in three ways: as urine, in the stool, and by vaporization from the skin and lungs. The water of the stool is negligible for the ordinary patient, but the pediatricians have long recognized the great losses that may occur in the infant with diarrheal infections of the gastro-intestinal tract. Probably the most acute dehydration known occurs in Asiatic cholera.

A word about the matter of urine, because later I am going to advise the maintenance of the urine output at a certain figure, which is 1500 cc. a day. We all know that the kidneys excrete waste materials in solution. Normal kidneys can concentrate urine to a specific gravity of about 1.030, while with diseased kidneys, increasing renal damage is associated with decreasing concentrating ability. Much more water is needed then by diseased kidneys to excrete the daily amount of waste materials than with normal kidneys.

Before studying water exchange I had given little thought to the matter of water vapor, but now I am going to point out the relatively large amount of fluids that can be lost through the skin and lungs. All of us, no matter what environment we are in, are vaporizing water all the time. This water we lose from the lungs and the surface of our body. It makes up about 90 per cent of what the physiologists call the "insensible loss," the remaining 10 per cent being due to the respiratory exchange of carbon dioxide for oxygen. The water vaporized is an important part of the mechanism for the control of body temperature. Under comfortable environmental conditions about 76 per cent of body heat is dissipated by radiation from the skin surface, and 24 per cent is lost by the vaporizing process, the adult person using in this way from one to 1.5 liters of water a day. With high temperatures and high humidities,

active sweating occurs, and the loss of heat may be entirely by vaporization, enormous amounts of water, and also salt in this instance, being thus lost. This is recognized and large amounts of salt solution are administered to stokers on steamships and the workers on Boulder Dam, and so forth.

It is important to point out that the insensible vaporization of water is not materially reduced when the general supply of water is so low that insufficient is available for normal kidney function. In acute or prolonged water shortage, when practically no urine is passed, vaporization from the skin and lungs continues, and critical dehydration and death may accordingly occur. Water shortage is first made apparent by a low urine output, because the kidneys do not take a share of the total supply to produce urine, but function largely with the water available after all of the other water excretions have been cared for. A poor water balance is shown by a scanty urine output.

WATER EXCHANGE STUDIES

The first studies on water exchange were made on patients during the course of an operation and the immediate four-hour postoperative period. The determinations involved a careful weighing of the patient and of all fluid losses.

Most surgeons fail to realize the amount of blood lost during the course of an operation. In one instance, a radical breast amputation, the bleeding amounted to more than a liter, and mild postoperative shock was present. With the ordinary operation, where less raw tissue is exposed, smaller blood losses were found.

During the four-hour postoperative period, many of the patients perspired profusely. These patients had been placed in what we called at that time the "ether bed." They were wrapped in many blankets and hot water bottles were placed around them. It occurred to us that we were defeating our own end by putting these patients in a Turkish bath, and that they were losing water through the skin that had better be left inside. Accordingly, the last six patients of this series were returned from the operating table to a hot-water-bottle-warmed bed without the extra covers. These patients were much more comfortable on reacting, and we saved something over half a liter of water for them. We have continued with complete satisfaction the use of reduced coverings and have had no increase in postoperative pulmonary complications.

The average total fluid loss during the operative and the four-hour postoperative period was a little over a liter, of which about 700 cc. was water vaporized from the skin and lungs. The urine output was increased in the six patients in which the sweating loss was decreased. Conditions are such, then, that on the day of their operation most patients dehydrate to some extent. For the more critical illnesses and serious operations there is every reason for the administration of parenteral fluids at this time. With the simpler procedures and uncomplicated cases, a greater intake of fluid by mouth on the first postoperative day usually re-establishes a normal water exchange.

The study was continued to determine the daily water losses of surgical patients, because it is only with such information that fluid can be supplied to them, when necessary, in a quantitative manner. The water vaporized was given particular attention because it is a loss that generally receives little consideration, may be of large amount, and must be allowed for from the study of a representative group of surgical cases.

It was found that adult patients convalescing uneventfully from major operations vaporized from 1000 to 1500 cc. of water daily. This is approximately the amount that any one of these patients would vaporize when going about their general activities under comfortable environmental conditions.

What effect does infection have on this loss through the skin? With the associated fever we know that sweating occurs and consequently more water is vaporized. If we knew the average loss in patients with fever the amount could be used as a safe estimate for this water output in calculations of water exchange. Data from several patients with fever showed variations from 1500 to 3000 cc. a day, with a good average of 2 liters daily. For a boy of 11 years with fever due

to peritonitis the vaporization loss was close to one liter daily. Another condition that naturally would cause an increase in the loss of water through the skin is exophthalmic goiter. With the increased metabolic rate there is more heat present to dissipate. We have studied many of these patients and the vaporization was close to 2 liters daily, where a normal individual would lose only about 1200 cc. In general, the amount of water vaporized by the sick surgical patient can be safely estimated at 2000 cc. daily.

The urine output is the other normal fluid loss that must be considered in water needs. I mentioned previously that not less than 1500 cc. of urine daily is desirable for the sick surgical patient. This amount was adopted purely from a consideration of kidney function. Lashmet and Newburgh determined the amount of water required by kidneys of various concentrating ability to excrete the normal amount of daily waste materials. From their figures it is evident that for an individual with normal kidneys, those capable of concentrating urine to a specific gravity of from 1.032 to 1.029, at least 500 cc. of urine daily is needed for this function; whereas for individuals with the most severe grades of renal damage, capable of concentrating urine to a specific gravity of only 1.014 to 1.010, at least 1500 cc. of urine daily is needed to do the same job. A minimum output, then, of 1500 cc. of urine daily for all sick surgical patients ensures adequate renal function.

It is apparent, then, that to provide for the water of vaporization and urine of the sick surgical patient who is unable to take anything by mouth, 3500 cc. of fluid daily is needed. In many instances there are also other portals of fluid loss as a complication of the illness. Vomitus, diarrhoea, drainage from intestinal and biliary fistulae may carry away large volumes of fluid. I have seen patients produce almost a quart of sputum a day. These abnormal losses should be measured and recorded on the patient's chart by the nursing staff and must, of course, be taken into account in calculations of water requirements, since they are absolute losses which carry out no physiological function, and if not considered simply take water that was given for vaporization and urine. It is not uncommon to see dehydration occur in these patients with abnormal losses in spite of what superficially appears to be a good intake of fluids. All too frequently the poor urine output is attributed to a reflex or toxic suppression of kidney function, whereas the real fact is that the surgeon did not supply the patient with sufficient water. There are many causes of oliguria, but no others should be considered until the water exchange of the few preceding days has been checked over and dehydration as the etiological factor eliminated.

DEHYDRATED CONDITIONS

The patient who comes into the hospital in a dehydrated condition offers an additional problem in water balance. The fluid requirement in such a case is not just the amount needed for the maintenance of normal water exchange, but an additional quantity is necessary to restore the body fluids previously lost. How can we tell how much fluid was previously lost? If it were known about how much body fluids need to be depleted in order to produce the signs of dehydration the additional factor could be allowed for on that basis. To furnish data in this regard two normal subjects were deprived of water for four days and three days respectively. It was found that the signs of serious dehydration—a dry, hot skin, dry, leathery tongue, sunken eyes, scanty urine output, and fever—appeared when their body had lost fluid amounting to 6 per cent of their total weight. The corollary to this can be used clinically. When a patient is seen with these signs of dehydration, it can be assumed that they have been depleted of body fluid to that extent, the calculation being 3600 cc. for a 60 kg. individual. The amount of fluid to be given to such a patient during the first 24 hours in the hospital would then be: water for vaporization, 2000 cc.; water for urine, 1500 cc.; water to restore fluid previously lost, 3600 cc. The total of 7100 cc. is a lot of fluid, but studies on several dehydrated patients have shown that such quantities are necessary to take care of the preferential water-using processes and then leave enough for a good urine output. Once the dehydra-

tion has been relieved much less water is necessary to care for normal water exchange.

With a calculation of the amount of fluid to give to a sick surgical patient, the kind of fluid to give should also be considered. This will depend upon what the patient needs. They should not be given a salt solution routinely unless they are losing sodium chloride from some place. This occurs if the patient is vomiting, and the water and salt loss can be well replaced by an equal volume of physiological sodium chloride solution. Fecal fistula or biliary fistula fluid should also be replaced by physiological saline. The water lost through the skin by surgical patients generally carries little salt with it, so that no saline is needed for its replacement. Where this is any question of a serious depletion of sodium chloride, blood chemistry studies should be done. Physicians are giving more fluids intravenously and subcutaneously now than ever before. The majority of the patients so treated have not lost appreciable amounts of sodium chloride, but chiefly need water. This can be supplied best by an isotonic (5 per cent) solution of dextrose in distilled water. The dextrose is rapidly oxidized and prevents ketosis, and the water is left available for all purposes.

Can too much fluid be given? There have been one or two articles on water intoxication, but I do not believe they are clinically applicable, and so far we have found no evidence that one can overload a heart by giving fluid in the amounts we do, and not faster than 500 cc. an hour. My plea is to give not too much or too little fluid, but exactly the right amount. Also, the fluid should be given in the day time because the patient is entitled to sleep at night. In our hands the thoughtful management of the water balance of the sick surgical patient has yielded gratifying results.

DISCUSSION

P. F. Swindle (Milwaukee): Doctor Coller is concerned principally with the water balance and water imbalance. He determined these by measuring the total intake and the total output of water, and he made some interesting statements. At the present time his investigations can scarcely be destructively criticized except on theoretical bases, but the possible constructive criticisms that may be offered, also on theoretical grounds, are seemingly much more important and interesting than the destructive ones.

Some of the points which seem to be unusually interesting are as follows:

(1) He failed to obtain evidence of overworking the kidney. Under what conditions would one ever be able to say the kidney is overworked? Why do people speak so glibly about overworking the kidneys?

(2) A comparison of the fluid intake with the urine output fails to give a complete picture of the water exchange. This point seems obvious, especially since Doctor Coller has taken pains to emphasize the importance of determining the insensible losses of water which may vary from 1000 to 2500 cc. daily, but this point has not always been as obvious as it is now.

(3) The insensible loss of water does not suffer a reduction when the general supply of water becomes so low that none is available for kidney function. Dehydration and death may accordingly occur.

(4) The kidneys do not necessarily take a share of the total supply of available water to produce urine. They function with the water available after all of the other water excretions have been cared for.

This last observation, together with a considerable number of others, makes it difficult to understand how the kidney can function in the way it is generally supposed to do. It gives me an opportunity to state that the glomerulus is probably not the functional unit of the kidney it is generally supposed to be. The glomerulus is not even present in some animals—in about thirty species of fishes, but rarely in mammals. The aglomerular kidneys of a monkey were exhibited at the 1934 session of this Society at Green Bay. Tests show that the glomerular capillaries are probably less permeable than any others in the body. On the other hand, the postglomerular vessels (including the vasa efferentia) are perhaps the most permeable. It is through these that the greater part of the filtration occurs. It is interesting that a vas efferens can be inflated to points between fifteen and twenty times its normal size while a vas afferens subjected to the same internal pressure undergoes only a slight inflation. We commonly say the vas efferens is smaller than the vas afferens. This is true in the dead kidney but only at times in the living one.

The flow of liquid through the walls of the postglomerular vessels is automatically regulated by a perivascular seep valve which is also present at many other parts of the body (Amer. Jour. Physiol., Vol. 114, No. 2, Jan. 1936, p. 491). A careful study of the functioning of this valve reveals why it is the case that the urine output varies in ways that are otherwise difficult or even impossible to understand. In my opinion a study of the functioning of the seep valves at various parts of the body is tremendously important in connection with almost any problem of fluid elimination or of fluid exchange.

Dr. F. Gregory Connell (Oshkosh): Dr. Coller has emphasized the necessity of *accurate* estimation of water intake and output; and also certain consequences of water imbalance such as: dehydration, anuria and disturbances in the relative proportion of various substances (electrolytes, organic compounds and colloids) that are held in solution or in suspension.

In my discussion, I shall consider another important function of water, likewise calling for balance, that of *transportation* (of this and that, from here to there).

Disturbance in the transport function of body fluids, (the circulation) usually manifests itself first at the periphery, i. e., the capillaries; of the extremities (visible) and of the viscera (invisible).

Disturbances in these two groups present striking differences as follows:

Capillaries	Somatic (Extremities)	Splanchnic (Intestinal)
Covered by	Epithelium	Mucous membrane
Environment	Sterile (comparatively)	Septic
Pressure	Open air, atmospheric pressure, unconfined.	Distention constricts capillaries between mucosa and inelastic submucosa.
Postural influence	Plus	Minus

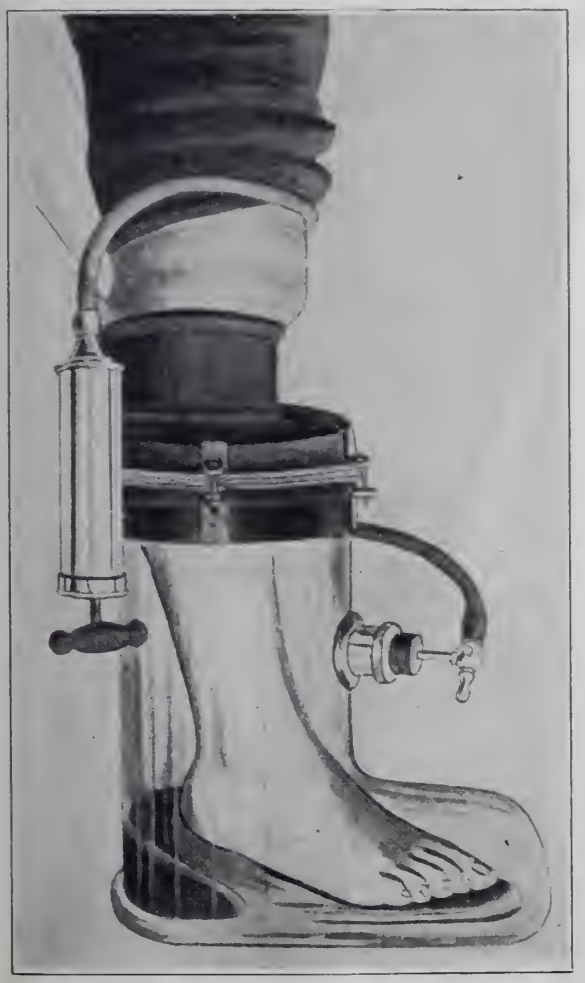

Figure 1.

In capillary stasis of the *extremities*, produced artificially by compressed air apparatus, the correction is simple, i. e., by pulling the cork.

In capillary stasis of the *intestine* produced by "ileus," correction by enterostomy—analogous to pulling the cork—is not simple, and, if late, is unsatisfactory. But, if carried out as a preventive measure, for example, at the time of operation in cases of perforative appendicitis, it is quite simple and more satisfactory.

Decrease in intra-intestinal distention and therefore diminished pressure upon the capillaries, between the mucosa and the submucosa, permits, nearer to normal, secretory and absorptive functions of the mucous membrane and motor function of the visceral wall.

This desirable objective, i.e., decompression (not necessarily drainage) of the bowel may be accomplished in various ways; if early, by minimizing peristalsis (starvation, opium, and omission of laxatives), if late, by indwelling duodenal catheter; if later, after perforation, by prophylactic enterostomy (cecostomy or ileostomy) at the time of the appendectomy.

Practical clinical application of these observations upon peripheral circulatory disturbances may be made in the management of acute appendicitis.

The cause of death in appendicitis is peritonitis.

The cause of death in peritonitis is ileus.

The cause of death in ileus is, more or less, questionable.

Howard F. Kelly ("The Vermiform Appendix," p. 638) states, "Among all the various causes of ileus, one of the most important is paralysis of the bowel from gaseous distention."

In non-gangrenous ileus, dehydration, chloride loss and starvation are the chief factors.

In gangrenous ileus, increased or continued distention within the bowel, interrupts the local circulation with resulting formation of abnormal, deleterious, irritating, "toxic" substances, and later their absorption, from the hypertensive septic lumen; which produce a so-called "toxemia," a presumable cause of death.

Therefore the treatment of acute appendicitis should aim at prevention of peritonitis (early appendectomy before perforation), and the treatment of peritonitis should aim at prevention of ileus (by enterostomy to prevent intestinal distention).

The results following this *prophylactic* enterostomy will, of course, be definitely more favorable than those following a *therapeutic* enterostomy.

(First recommended as a prophylactic measure by Gebhart ("Die Enterostomy in der Prophylaxe und Therapie der Peritonitis" Deutsche Ztsch. f. Chir. 74:20:1904).

First recommended as a therapeutic measure by Henrotin, "Enterostomy and Drainage in Treatment

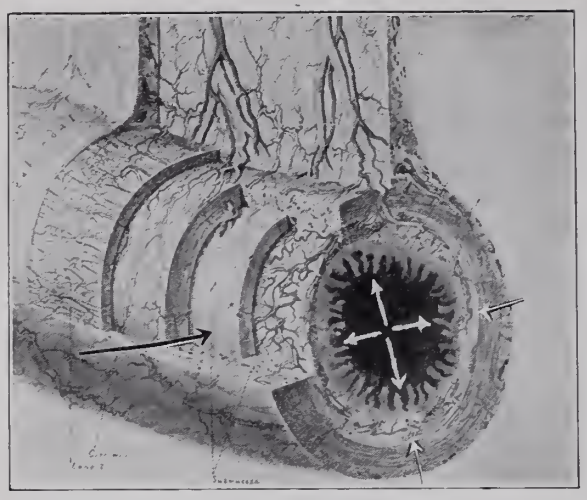

Figure 2.

of Acute Generalized Peritonitis." Am. J. Obst. & Gynec., 28:199, Aug. 1893).

It has been the practice, for about 20 years, of my associate, Dr. C. J. Combs, and myself, to add a prophylactic enterostomy in all cases of perforative appendicitis. This procedure has a physiologic basis in maintaining or re-establishing normal fluid balance in the vessels of the intestinal wall.

Unknown and inconstant factors such as: the natural resistance or immunity of the individual, the type of the bacterial infection, the extent (localized, spreading, diffuse or general) and the character (serous, sero-purulent or purulent) of peritonitis, make difficult a scientific evaluation of the result, but clinically the results have been most satisfactory.

Permanent fecal fistula calling for secondary closure has been necessary in about 1%, but not since the enterostomy tube has been passed through the omentum.

The Otolaryngologist Looks at the Law*

By W. E. GROVE, M. D.
Milwaukee

THE great complexity of modern existence, the vast expansion of our industrial life, and the general speed at which we are traveling today, force us, as ethical otolaryngologists, to take cognizance of the effects of head trauma on the various anatomical divisions of our special field. As a rule most of us do not wish to become involved in medico-legal cases, but I wish to emphasize the fact that ethical otolaryngologists should concern themselves with these injuries, for this work should not fall into the hands of charlatans and quacks.

I am asked to talk to you tonight on the medico-legal aspects of head injuries which involve the ear. From the very moment that you examine or treat a patient who has been thus injured you are morally obligated to testify at some commission or court hearing, whether on his own request or at the instance of some defendant. It therefore behooves you to take a careful and detailed history of such injury or of any previous injuries to the head and to make as careful an examination as is possible so that you will be able to answer intelligently questions which are put to you.

Any injury to the head may create a disturbance in the ear mechanism, either in the peripheral end organ or in its central connections. The hearing may be involved or the vestibular mechanism may be injured. And do not be misled by the apparent lack of severity of the blow or injury. On the one hand, a glancing blow to the head, which is insufficient to knock the individual down or to produce unconsciousness, may cause considerable derangement of hearing and equilibrium, lasting for a long period of time, while, on the other hand, an injury severe enough to produce a long period of unconsciousness and a basal skull fracture with bleeding from one or both ears will heal with little permanent damage. Therefore the apparent severity of the injury bears no particular relation to the pathological consequences. Brain injury and internal ear injury may result from head trauma of any sort if this trauma be of sufficient intensity to produce a sudden movement of the brain, and this movement of the brain is possible because it lies free, surrounded by the cerebrospinal fluid. This sudden swinging move-

* Read before the Chicago Laryngological and Otological Society, May 4, 1936.

ment of the brain also explains the contre-coup pathology so frequently encountered.

Furthermore, because of the elasticity of the skull, even in the adult, a certain amount of compression of the brain is possible, although the skull may not fracture. This sudden compression of the brain can set up a violent movement of the fluid within the ventricles which expends its energy in the fourth ventricle and damages that nuclear territory immediately beneath the floor of this ventricle; namely, the central vestibular territory.

The sudden movement of the brain against the surfaces of the petrous pyramid can also set up a violent commotion in the internal ear fluids by suddenly compressing such soft structures as the internal auditory meatus and the saccus endolymphaticus. Such a commotion in the endolymph and perilymph usually exerts its greatest force in the region of the round window where hemorrhages may take place and where the delicate structures of the membranous ear may be damaged.

The skull fractures which may involve the ear are basal skull fractures which either cross the pyramid or run longitudinally along one of its margins. In the first case all functions of the ear are lost; in the second, the loss of function is partial or it may not be present at all.

When the hearing defect is partial it usually involves the upper part of the tone scale and is usually, though not always, bilateral. One ear may be affected more than the other but a careful examination will reveal some hearing defect in both ears. Inasmuch as this traumatic defect usually involves the upper tonal range one must be careful in medico-legal cases to exclude the other pathological causes for such a defect.

The vertigo produced by head injuries is caused by injury of the peripheral end organ or of the central vestibular area in the floor of the fourth ventricle or to both of these factors. If the vertigo be due solely to a damaged peripheral end organ it should cease after a variable period. If the vertigo be due to injury of the central vestibular area it can remain or recur for many months and even years after the original injury because of the very nature of the pathology produced in this region.

While the immediate effects of trauma to this tissue are the production of contusion of brain tissue and petechial hemorrhages, which, as in other parts of the body, are repaired by scar tissue, the injury may also produce a damage to the vasomotor control of the circulation in this area. This loss of vasomotor control may for months and even years react unfavorably to such influences as hard muscle effort, bending movements, sudden movements of the head, elevation above ground level, exposure to the sun and heat and over-indulgence in alcohol.

Inasmuch as there are many forms of dizziness and many causes for it, the medico-legal case must have a careful physical and neurological examination to exclude non-traumatic causes of dizziness.

There is no more certain sign of invasion of the vestibular mechanism than turning or rotational vertigo. This may, however, not be traumatic in origin. Other pathological causes must be excluded.

The so-called errors of sensation, in which the patient complains of the room or the sidewalk or the bed being uneven or tipping or where things "get dark" before his eyes or where he has an unsteady, uncertain feeling, may or may not be vestibular in origin. If these errors of sensation are accompanied by labyrinthine hyperirritability or by a lack of balance of the two vestibular mechanisms to caloric stimulation then they too must be classed as vestibular in origin.

The usual complaints offered by the patient who has suffered a head injury are headache and dizziness. The complaint of headache is, of course, purely subjective and not amenable to proof, but if the vertigo is traumatic in origin this fact can be proven by one or repeated examinations. If the patient has a vertigo which can be proven objectively then one is free to assume that he also has the headache complained of.

Like the poor, the malingerer we have with us always. A malingered loss of hearing can be detected by the usual malingering tests known to you all. The presence or absence of vestibular vertigo can also be estab-

lished objectively but let me warn you that where malingering is suspected one single examination will not suffice. This must be repeated and sometimes many times. It sometimes happens that for some reason or other one is prejudiced against a patient. Give him the benefit of the doubt and examine him repeatedly before you put him down as a malingerer.

Now, just what are the factors that are disabling in the individual who has suffered a head injury involving the ear mechanism? The main features that concern us as otolaryngologists are headache, vertigo and loss of hearing.

Headache is a subjective symptom and in many cases we are unable to properly evaluate it especially in individuals who have developed a superimposed neurosis. A headache which, in one person, is only a discomfort and allows him to go about his ordinary business, may in another be absolutely disabling. If headache is present we have no way of gauging its intensity.

Loss of hearing which is complete or nearly so is compensable. If only the extreme upper tone range is affected the involvement, though valuable from the standpoint of making a diagnosis, is not very disabling. Even complete loss of hearing in one ear is not extremely disabling if the other ear be normal. Involvement of the second ear must have a much higher rate of compensation than deafness of one ear only.

The value given to true vestibular vertigo should, in my opinion, be considerably greater than that placed upon partial loss of hearing or even complete deafness of one ear only. The estimation of the disability from traumatic vertigo rests upon a number of different factors, such as the frequency of the spells and their duration, the age of the patient, his occupation and so forth. Even with these factors to guide us the estimation of the disability caused by vertigo will always have to be more or less guess work, based upon a large experience. In my own experience the age of the patient is a very important factor in determining his disability. Other things being equal, the younger the person the less disability will he ultimately have and vice versa.

The occupation of the individual is also an important factor. A vertigo which would be 100% disabling in a day laborer working with a pick and shovel and doing work requiring much bending, or in a structural steel worker, might disable a desk worker very little.

Just exactly how much compensation an injured party is to receive because of an accident does not concern us as physicians. This is a function of commissions and courts.

THE EXPERT WITNESS

Now let me place before you my ten commandments for the expert witness in a medico-legal case.

1. Examine your case thoroughly and repeatedly so that you know what you are talking about. Know your facts well. They must be incontrovertible. The opinion you form from these facts is your own but must be arrived at honestly.

2. Testify slowly, clearly, simply and in language that the layman can understand. Forget your Latin medical terms. You are obliged to talk down to the lowest level of intelligence in the jury box in order to get your facts across.

3. Stick to the unvarnished truth. If you do not your statements will strike back at you like a boomerang.

4. Do not become partisan or assume a proprietary interest in the legal proceedings for if you do it will diminish your value in the eyes of the court and the jury.

5. Maintain your dignity and do not advise or consult with an attorney in the courtroom but sit far away from him. The attorney should prepare his case before he goes into court.

6. You are not required to answer by "yes" or "no" an involved question if such answer places you in the position of the man who was asked, "Have you stopped beating your wife?" Your "yes" would be a lie and your "no" a prevarication. If a long, involved hypothetical question is to be propounded to you, request that it be given to you in writing before you are put on the stand so that you may thoroughly study it and not embarrass your attorney by your answer.

7. Answer truthfully any question put to you in cross-examination even though the answer seems to put your attorney in a hole. If he is not intelligent enough to qualify your answer in his own rebuttal it's just his hard luck.

8. Refuse to answer any question which pulls you into some other field of medicine than your own. You may always say, "I cannot qualify."

9. Do not allow an attorney of the blustering, bulldozing type to anger you or "get your goat." The purpose of this line of questioning is to throw you off guard.

10. Remember that at times the most valuable words in the English language are, "I do not know."

As long as you adhere to the above-mentioned principles your day in court should not be an unpleasant experience even though you may regard it as somewhat of a waste of time.

And, finally, remember that your value as an expert witness will last only as long as your integrity is unassailable.

The Ambulant Treatment of Hernia

By A. H. KNUDSON, M. D.
Milwaukee

IT IS difficult to realize that but a few years ago none of the now well-established clinics doing this work would have even ventured an opinion as to the possibilities of this method in treating hernia. I am frank to confess that I approached the subject with a prejudiced mind and still do not believe that I am an enthusiast, but I do feel that a method which offers good results in selected cases should be given consideration by the profession.

In bringing this subject to your attention credit must be given to Dr. Arthur Bratrud who, in 1931, began making a scientific investigation of this method at the University of Minnesota Hospital Dispensary and who, since then, has been instrumental in demonstrating its value to the profession. Dr. Carl Rice, in 1933, became interested in this work at the Minneapolis General Hospital, and he also reports very favorable results. Both of these men have become thoroughly convinced, after treatment of many cases which included all reducible direct and indirect herniae and some postoperatives, of the rationale of this treatment. I shall not attempt to review further the literature on this subject as these men have probably carried out more scientific work on dogs and humans than all others combined. Various claims have been made by men in the past but not founded, however, on any accurate, scientific basis and are therefore of little value.

My small series of cases, which I wish to report, consist of twenty cases of small, indirect herniae and five cases of bubonocele. I felt that though I had done considerable work in this field at the University of Minnesota Dispensary, it would be well to begin on selected cases where I could be certain of good results. The ages varied from six years to eighty. I was careful to select cases which were not too obese so that I might easily locate my proper points of injection. I shall attempt to explain my reason for selecting small, indirect herniae rather than direct or postoperatives. In all herniae of this type the original weak point is in the region where the testicle makes its descent or at the internal ring, and, as you recall, the canal extends obliquely downward to the external ring which is a distance of about one inch. The direction of greatest strain is therefore at nearly right angles to the direction of the canal, and because of this the hernia meets its greatest resistance at the internal ring. This probably partially explains also why one may be born with a potential weakness at this point and not develop a hernia until years later. Considering, therefore, the anatomy and course of the indirect as compared to the direct, which as you know comes through Hesselbach's tri-

angle directly into the external ring, I feel that one should expect better results in the former. A greater area can be injected at places where the most good can be accomplished.

STEPS IN TREATMENT

I shall now discuss and evaluate the various steps in this type of treatment. After a thorough examination has been made to determine whether the hernia is one for surgery or injection, it is necessary and very important to fit the patient with the proper truss. You will find very little in textbooks regarding the fitting or measuring of trusses. The measurement should be taken horizontally around the body with the patient in the erect position and two inches below the crest of the ilium or midway between the trochanter major and the crest. Whatever the number of inches it happens to be will be the size of truss to obtain. Bratrud has found that the Smithsonian Number 31 spring truss with a factis pad gives very satisfactory results, and I have used this type in nearly all of my cases, placing the pad at the internal and not the external ring, as has been done in the past. The reasons for so placing it are these: it is the point of greatest resistance to the descending hernial sac, and, secondly, in the ordinary truss the pressure is exerted up and backwards at the external ring which dilates the canal and allows the gut to fall into it. In the Smithsonian type the pressure is exerted downward and backward at the internal ring, thereby drawing the surface of the canal together because of intra-abdominal pressure. In so doing the hernial sac is kept entirely within the abdominal cavity at all times.

I have the patient wear the truss day and night for one week before beginning the injections, giving him a chance to become accustomed to it and allowing the structures to more nearly fall into their normal positions. On removing the truss a depression is noticed at the point where the pad exerts its pressure. This is very desirable.

The next consideration is the choice of the solution to be used. In the past several have been used by Bratrud at the University of Minnesota, including tincture of Thuja, Mayers, Pina Mestrae, Proliferol, and Sylasol. I believe further work is still being carried on in an attempt to find a perfect solution, which should be effective as well as painless. Suffice to say is that in this series I have confined myself to the use of Proliferol, which I believe is considered to date one of the best solutions.

One is now ready to begin the injection of the hernia. With the patient lying on his back on an examination table, the truss is removed, and the area cleansed with a tincture of merthiolate, using a camel's-hair brush. The area is not shaved, because an irritation would result from the pressure pad. Two cubic centimeters of a one per cent procaine solution is drawn into a syringe, using a twenty-two gauge needle two inches long, which is then passed through the skin and fascia of the external oblique muscle with the needle pointed obliquely caudalward at the internal ring, which is located midway between the anterior superior iliac spine and the pubis, and about one-half inch medial to a line drawn between these points. In passing the needle through the fascia of the external oblique muscle a sudden lack of resistance is felt as when doing a lumbar puncture. With the index finger of the other hand directed through the external ring into the canal, one can definitely feel the needle point which is now in the internal ring. Before injecting it is well to draw back on the plunger to be certain that no vessel has been entered. The procaine is now injected and the syringe removed, leaving the needle in place. About two cubic centimeters of the Proliferol solution is then injected slowly through the same needle, the site cleansed, and the truss replaced. The patient is instructed to come in for two injections weekly. I have found in my series that four injections into the internal ring, followed by two along each side of the canal, and finally giving about four into the external ring are sufficient. During these injections, and for about one month following, the truss is worn continuously. The truss may then be removed for bathing and at night, but it is to be worn during work for about four months, thereby giving the scar tissue sufficient time to form.

In doing this work I have noticed that after about the sixth or seventh injection there is considerable induration of the tissues. The canal and rings are often closed to the point where there is a slight swelling of the cord. It is well to dismiss the patient then for two or three weeks to allow this to subside; then one can more accurately find any weakened area and inject it, assuring a better final result.

As to complications which one might expect, I believe that will depend very much on the individual's proper training and choice of cases before attempting to do this work. I feel certain that one who occasionally attempts this work and who has not acquainted himself with the anatomy and surgery of these parts will be inviting such complications as the following: injecting into the cord with a resulting hydrocele, injecting through the peritoneum with a peritonitis following, and various other dangerous complications. The skill, however, required to avoid these is probably comparable to that required for any other surgical procedure and is not beyond the reach of those who will devote a little time and effort in acquiring it.

RESULTS

Quite naturally one is asked just how permanent the results are. This of course will depend, I believe, on each individual's choice of cases, thoroughness in treatment, the patient's cooperation, and, probably of greatest importance, the fitting of the truss. We know the wearing of a truss continuously will, in itself, sometimes eradicate a small hernia. One must not conclude because after a few injections he can have a patient stand without the truss and cough without an impulse being felt, that the patient can be dismissed. As I have previously stated, part of this is induration of the tissues which will shrink, and to your amazement it is found not entirely sealed.

My oldest completed case dates back only a little over a year, and the twenty-fifth case was dismissed a month ago. I have not had a recurrence, which is of little significance, but I have every reason to expect as good results as Doctors Bratrud and Rice, who have a large number of cases over two years old with but a small percentage of recurrences. Their series included small and large reducible indirect, as well as direct and postoperative cases. Their results compare very favorably with surgery, and, I believe, if properly done, the percentage of cure will be in proportion to the attention given each case just as in surgery.

In conclusion, I believe this method is particularly well adapted for use in all small, indirect inguinal herniae, provided the proper technique is acquired.

Cataract; Development of Following the Use of Dinitrophenol

By RALPH T. RANK, M. D., and E. A. WALDECK, M. D.
Milwaukee

IT IS our purpose in reporting this case of cataract following the use of dinitrophenol to add its evidence to that of the more than one dozen cases reported recently in the Journal of the American Medical Association. It is our hope thereby to lend emphasis to a serious untoward effect of a drug which is widely used. In the present state of our knowledge concerning the modus operandi of this drug upon the lens of the eye there is no means by which the development of this complication can be controlled as it has occurred in cases in which the amount of the drug given was relatively small.

Miss G. K., age 24, a healthy-appearing, overweight female, was first seen by us on October 14, 1935, with the complaint of poor vision for the past week, especially noticeable in the left eye. The vision had become so impaired in a short time that it interfered with her work as a stenographer. There was no history or evidence of trauma. The past history was irrelevant. There was the history of cataract in one member of the family at the age of 92 years. No history of congenital cataract.

It was after our examination that we obtained the history that, in June, 1935, the patient had re-

quested a reducing aid from her druggist who thereupon "counter prescribed" dinitrophenol. The patient took 1 capsule (gm. 1.5) of the drug three times a day for two months, a total of approximately gm. 18.0. Symptoms noted by the patient during the period of taking the drug were palpitation of the heart, excessive perspiration and a yellow discoloration of the eyes. The onset of the visual disturbance followed by over a month the discontinuance of the drug. There was no loss of weight.

The examination of the eyes showed the lids and conjunctivae to be negative, the corneas clear, the tension normal, the pupils and the external ocular muscles normal. Ophthalmoscopic examination revealed cortical opacities of both lenses but of more marked degree in the left lens. The opacities appeared similar to those occurring in the senile type of cataract. The right fundus was indistinct but grossly negative. Vision R. E. 20/40—with correction. Vision L. E. reduced to counting fingers at three feet. There was good light perception and projection. The urine was negative. Blood calcium was 7.0 mg. per 100 cc.

There is evidence of the previously normal state of this patient's visual apparatus in the records of another ophthalmologist who, in 1931, reported the media as clear and obtained 20/15 vision in both eyes with a weak plus correction.

Examination with the slit-lamp revealed that the corneas and anterior chambers were normal. The anterior capsule of the right lens was of a finely granular appearance. The cortex presented an ice-blue opacity divided by radially directed striae into irregularly shaped sectors. The posterior lens structure reflected the brass yellow sheen so often described. The changes in the left lens were similar but were developed to a more marked degree.

On October 18, 1935, the vision of the right eye had been reduced to 20/100 and five days later, just nine days after the first visit, was limited to counting fingers at five feet.

SUMMARY

This case of cataract in a young girl, following the use of dinitrophenol, bears out the other reported cases in the very rapid development of the opacities. The vision in the right eye decreased from 20/40 with correction to counting fingers at five feet within a period of nine days. The onset of the visual symptoms followed by a month the discontinuance of the drug. A total of gm. 18.0 of dinitrophenol had been taken by the patient. This dosage is one of the smallest reported which has been followed by the development of cataracts. The average of the total amount taken by all the cases in which the dose was mentioned was gm. 73.0 and the amount ranged from a minimum of gm. 9.0 to a maximum of gm. 126.0. This is the second case of cataract following the use of dinitrophenol that one of us has seen within the past three months.

Since this case report was submitted for publication, this case has been operated upon with satisfactory results, and two more similar cases have presented themselves for our services. In this interval, also, an increasing number of reports of cases of cataract following dinitrophenol have been appearing in the literature, so that the profession is by now well aware of the problem.

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Pneumococcus Meningitis; Report of a Case With Recovery

By J. F. BENNETT, M. D., and H. J. MEIER, M. D.
Burlington

MENINGITIS of the pneumococcal type has an exceedingly high mortality rate and particularly those of otitic origin. It is therefore desirable to record a case of otitic origin in which there was complete recovery.

There are some fifty cases of recovery recorded since 1896 at which time Jemma reported the first case to recover from pneumococcus meningitis.

The treatment in these reported cases of recoveries has been variant. The majority, however, have been treated with pneumococcal serums, intraspinally and intravenously. In all the cases it was noted that daily

lumbar puncture combined with occasional cisternal puncture, with adequate drainage of spinal fluid, was carried out. In some instances this was all that was done for the patient. Gentian violet, Pregl's solution, mercurochrome, autogenous vaccines and urotropin per os, have been used with apparent success. Optochin has been used in several cases and experimentally, and it is quite well agreed that serum in conjunction with optochin is more beneficial than either alone.

Relapses are common. The patients often seem to be progressing well on to convalescence when all signs and symptoms reappear. These relapses can usually be attributed to too early discontinuance of drainage of cerebrospinal or to a blocking off of an area by plastic exudate, such areas acting as reinfecting foci. Harkavy stressed the point that complete adequate drainage had to be maintained and if blocking of spinal canal occurred, cisternal drainage should be carried out daily. In the case reported by him a relapse occurred after lumbar puncture was dry, due, apparently, to adhesive blocking of the canal. One case reported by Bedell was treated by placing tube in cistern for drainage and saline irrigations. Except for secondary meningitis caused by B. proteus this patient did well and made a complete recovery.

REPORT OF CASE

A white girl, age 9, was admitted to the Burlington Memorial Hospital, January 20, 1934, complaining of headache, vomiting and stiffness of neck which had been present for twenty-four hours. Previous to this the patient had been ill at home with an acute otitis media which had discharged a thick pus since the ear drum had been incised two and a half weeks previous to her entrance into the hospital. It is interesting to note here also that the entire family (except for the father) had had severe upper respiratory infections at the same time, with such complications as cervical lymphadenitis, otitis media, sinusitis and a broncho-pneumonia in a younger sister.

On examination the pupils were equal, regular and reacted to light and accommodation. There was no nystagmus, ptosis or lid-lag. Fundi were normal.

The right tympanic membrane was normal. The left tympanic membrane was much thickened and a dull red with discharge oozing from the posterior quadrant. There was no pulsation. No mastoid tenderness.

The neck muscles were rigid and there was a positive Brudzinski, Kernig and a tache cérébrale. The heart, lungs, abdomen, and genitalia were normal.

A spinal puncture shortly after entrance showed the spinal fluid to be under increased pressure with ground glass appearance. Spinal fluid cell count was 695 with 88% polymorphonuclears. The smear was negative. Culture was negative.

Blood count on entrance showed 28,000 WBC's; 2,740,000 RBC's and a hemoglobin of 52%. The differential count was lymphocytes 18, polymorphonuclears (neutrophiles) 79, monocytes 3.

Blood culture was negative.

Roentgen examination of the mastoids showed the right to be normal. The left showed clouding of the zygomatic and periantral cells.

Smear and culture from the discharge of the left ear showed gram-positive diplococci with capsules, some in groups of two and some in short chains.

Surgery on the mastoid was deferred for want of evidence of more extensive involvement and because of the general condition of the patient. The advisability of ligating the jugular on the left side was also considered but this was not done.

Treatment was instituted immediately. Boric irrigations of the ear twice a day; ice cap to the head and codeine for pain. Intravenous glucose in saline was given daily for the first four days and in addition retention enemas were given of normal saline. Spinal punctures were done daily except for omissions on 6th, 7th, 15th, 16th, and 17th days. Four whole blood transfusions by multiple syringe method were given, ranging from 220 cc. to 250 cc. each time.

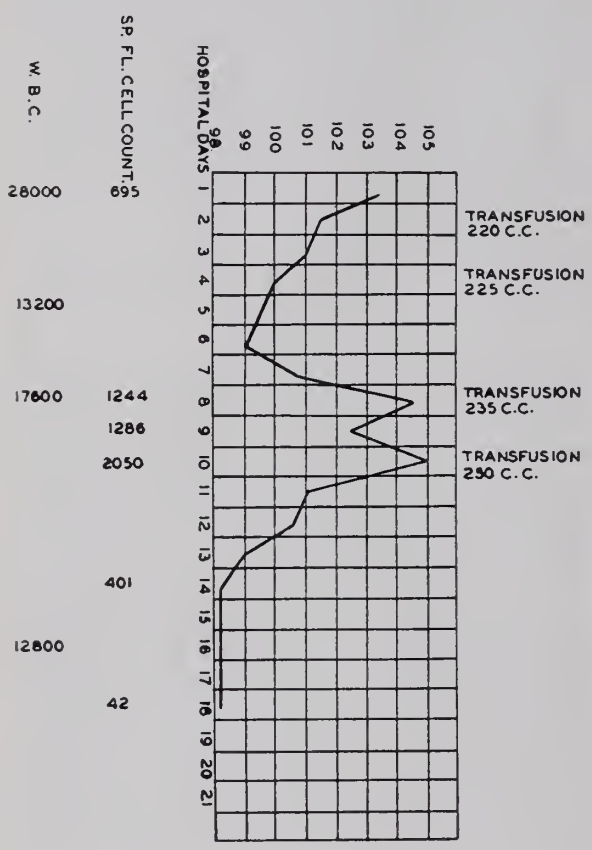
The improvement in the patient was gradual for the first six days with cessation of vomiting and pain and disappearance of meningeal signs except for a slight neck stiffness.

On the eighth day of her stay in the hospital all symptoms and signs returned and the patient was more acutely ill than she had been on entrance. The spinal fluid cell count went up to 2,050 and at this time the smear and culture of the spinal fluid showed gram-positive diplococci, with capsules, in groups of two and some short chains, being identified as pneumococci.

Daily spinal drainage was again instituted and whole blood transfusions were done. She responded well to treatment and on the fifteenth day the temperature was normal and all signs had disappeared with spinal fluid cell count being 401; the smear and culture negative. She went on to recovery and was discharged by ambulance on the 18th day with a cell count of 42. The ear at this time had discontinued to discharge and had begun to take on its normal appearance.

The girl eventually made a complete recovery without any sequelae.

The bacteriological work was done by an experienced technician in our own hospital and was not verified outside anywhere, but we feel sure that we were dealing with the pneumococcus, both from the ear and the spinal fluid.



SUMMARY

The mortality rate in pneumococcus meningitis is extremely high. In those cases reported as recovered the period of illness has varied from 20 to 54 days.

The treatment of most recovered cases have been with pneumococcal serums while a few have recovered with the use of optochin and other forms of treatment such as mercurochrome, Pregl's solution and autogenous vaccines. Outstanding in all the cases reported has been the need for early diagnosis and the early institution of treatment with adequate drainage of cerebrospinal fluid.

The case here reported was treated more conservatively than most of the cases reported. It would seem that early diagnosis with much emphasis on supportive treatment combined with the more specific treatments and adequate drainage would do much to lower the mortality rate of pneumococcus meningitis.

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If you are to keep pace with the new advancements in scientific medical knowledge, with the discoveries of your fellow physicians, you can not afford to miss the Annual Meeting of your Society. The Annual Meeting of the State Medical Society is in reality an intensive postgraduate course—an opportunity to increase your service to your patients.

In addition to the scientific sessions arranged by the Committee on Scientific Work you will find an excellent array of scientific and commercial exhibits which will contribute materially to the educational value of the meeting.

Combined with the scientific session you will find entertainment for yourself, your wife and your associates. Be in Madison September 9, 10, and 11.

Mucocele of the Appendix; Case Report

By ARNOLD JACKSON, M. D.
The Jackson Clinic, Madison

THE rarity of mucocele of the appendix makes it of especial interest to those doing abdominal and pelvic surgery, but the numerous conditions it may simulate is a challenge to the diagnostic acumen of the physician.

Approximately 225 cases of mucocele of the appendix have appeared in the literature since Virchow's[10] classic description of mucocele in 1863. A varied terminology has been used to describe this condition as: hydrops, cystic disease of the appendix, retention cyst, colloid cyst, pseudomucinous cyst. The condition may be complicated by pseudomyxoma peritonei. The youngest case described was in a girl of 16 reported by Lazarevic.[5] She had a single mucocele. Mason and Hamrick[7] reported six cases of pseudomyxoma of the peritoneum all originating from mucocele of the appendix. Lieblein[6] reported five simple mucoceles as did Bell.[1] Nazz[9] and Kemker[4] each had three cases all with pseudomyxoma peritonei.

Undoubtedly chronic appendicitis is the most important etiological factor in mucocele of the appendix. The following factors are considered by Elbe[2] to be responsible for the development of this rare pathological lesion: (1) a gradual obliteration of the lumen of the appendix at one or more points; (2) the absence of gross infection; (3) a mucosa which is capable of active secretion of mucus, or a state of affairs in which absorption is less than secretion; (4) distention. Vorhous[11] states that without complete or almost complete stenosis of the lumen, the fluid would be forced out with increasing tension. It has been shown, however, by cases studied roentgenologically and pathologically that a free passage may exist between the mucocele and the cecum, consequently the stenosis need not be permanent. The view was also held by Vorhous[11] that no bacteria occurred in a mucocele, otherwise empyema and gangrene would occur. It is apparent that since there may exist a communication between the cecum and the mucocele, that bacteria may occur in the latter. It is probable that the mucoid material has a bactericidal action.

In the formation of a mucocele either the appendix or generally only a part of it are involved. As in this case the appendix and the mucocele are so closely fused that it is difficult to say where the one begins and the other ends. The two appear to be involved in a chronic inflammatory reaction. The diagnosis is evident by the yellow or glistening white, jelly-like contents of the mucocele which may exude if the lumen is patent. This substance if allowed to spill into the peritoneal cavity may produce a condition of potential malignancy in the formation of pseudomyxoma peritonei. This is a condition similar to that resulting from the rupture of a pseudomucinous cystadenoma of the ovary. The mucocele apparently remains benign so long as its contents are retained within the cyst walls.

A mucocele may vary in size from that of a normal appendix to one as large as the head of a man. They may be globular, sausage, egg-shaped, or pear-shaped. The appearance depends upon the amount of tension. If distended and extending into the cecum, the walls are as a rule glistening and the blood vessels stand out with great clarity. Microscopic examination shows the walls to be atrophied with fibrosis and round-cell infiltration.

On account of its rarity, mucocele has seldom been considered as a possible lesion in attempting to arrive at a preoperative diagnosis. In the female an ovarian cyst may be thought of. In an elderly male or female malignancy of the bowel may be suspected. If the mucocele is large and extends into the cecum it may cause symptoms of intermittent intestinal obstruction. Mayo[8] and Fauster[8] in a review of 70 cases from the literature found that no definite diagnostic point was revealed. They feel that with a history of distress in the right lower quadrant ac-

(Continued on page 669)

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« « « EDITORIALS » » »

Expert Testimony

THERE is plainly evident at this time an increasing spirit of antagonism to the medical profession by a certain portion of the laity. The cause of this is probably not single, but due to many different factors,—social, economic, political, religious—and like most discord may often be traceable to misunderstanding.

The responsibility for this state of affairs rests with the public, the profession, or both. To change the public by education is desirable, but a slow process, and is our indirect concern. To change the profession by improving results is our direct concern, but is also a slow process.

In an attempt to clear up misunderstandings many changes or modifications in certain habits and customs might be suggested. The profession, for a time at least, might direct attention to the fact that there are limitations as to what the physician may accomplish. Heretofore we have stressed our accomplishments which is perhaps unnecessary, as they speak for themselves, and much more gracefully.

Another manner in which misunderstanding might be reduced would be by a closer approach to a unanimity of opinion, among individual physicians, concerning various medical questions or problems.

Difference of opinion is, of course, desirable. It not only makes the stock market and horse races, but likewise encourages new development, advances, improvements in the comprehension of a subject or in the conduct of a group of individuals. Such a difference is notably lacking in the fads and fancies of "isms and quackery" that interfere with scientific medicine.

But when this difference of opinion is stressed, augmented and magnified in the daily press, as in the so-called "expert testimony" of litigation, the effect upon the public is far from favorable to the profession. The seeming ease with which the legal fraternity is able to secure physicians to testify in court, under oath, for both or either side of the case, has been suggested as an indication that these opinions were not always spontaneous and unbiased.

The fact that certain insurance companies, corporations or individuals may secure medical evidence, custom-made as it were, not once, but repeatedly; and that the other side may, with equal ease, find comparatively competent medical testimony to exactly opposite findings and conclusions, not only nullifies the testimony but makes a futile gesture

and more or less of a farce of the procedure and permits at times a suspicion as to the integrity of some of the physicians involved.

This state of affairs is most undesirable to the medical profession if not to the public or to the legal profession. Its correction is difficult because of our inborn fair-mindedness and a willingness to admit the right of different opinions to those who disagree.

The selection, or appointment, by the court, or by the profession, of an official analogous to an umpire, has been suggested as a step in the direction of co-operation, better understanding and fair play.

Some of these difficulties may be at least diminished by study of, and action in accordance with, the article by Dr. W. E. Grove on page 624 entitled "The Otolaryngologist Looks at the Law."

The "Ten Commandments" at the conclusion of the above article will be well worth memorizing as they will be applicable to all medical witnesses regardless of specialty. For example, in the First, if the facts are definitely established in the physician's mind, opinions based upon these facts might perhaps more frequently coincide.

The all-important factor in the entire subject seems to be covered in the following quotation: "The opinion you form from these facts is your own and must be arrived at honestly." F. G. C.

Opportunity For Service

PREVENTIVE medicine seems like an endless chain. The striking accomplishments of yesterday are today commonplace and the demand for continued improvements seems ever increasing.

R. R. Sayers, in his chairman's address (J.A.M.A. July 4, 1936) draws attention to the fact that "industrial hygiene" is nearly as broad in scope as is preventive medicine and that both include such matters as "problems of occupational poisons and dusts, ventilation, temperature and humidity, light, the noises and nuisances, cleanliness and plant sanitation, over-crowding, hours of labor, rest periods and fatigue, child labor, women in industry, medical and nursing services, physical examinations, communicable diseases in factory and personal hygiene."

The problem of silicosis among the dust-borne diseases has recently been given serious and striking publicity.

The conquest of typhoid, and its removal from the "Captains of Death," is an outstanding accomplishment of the real medical profession.

The necessity of prevention of contamination of the sources of our water supply seems to be well appreciated, is satisfactorily accomplished and is accepted as a matter of course.

The possibility of contamination of the water supply *after* leaving its source and *before* reaching the consumer has been comparatively overlooked, disregarded or neglected.

The "Century of Progress" epidemic of so-called amebic disease and its demonstrable cause in imperfect plumbing was a rude awakening to our satisfaction regarding the elimination of so-called sewage diseases.

The occasional outbreaks of typhoid (vegetative, bacterial) infections and of amebic (animal, protozoan) infestations have often been traced to breaks in the "aseptic technic," as it were; not due to contamination at the source of the water supply, but due to defects, imperfections or faults in the protection of the water supply after leaving the reservoir (the source) and before its use at the point of distribution.

Such contamination in transit may be due to a variety of factors. Often these are obscure and difficult to trace or locate, such as in milk or food contamination by flies, insects, rodents, and humans as well as water contacts. Back siphonage in waters mains and sewer pollution of water supply has been proven to exist even in buildings where the visible plumbing is distinctly modern and apparently correct, sanitary and safe.

With the object of protecting school children from water-borne disease, it has been recommended that such defects in apparently satisfactory plumbing of school buildings be searched for, and, if found, corrected before outbreaks of ill health *demand* such investigation and correction.

The resolution adopted by the "Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association," and published on page 643 in this issue, calls for approbation and serious consideration and cooperation upon the part of the responsible school boards or individuals.

There is, of course, no logical reason for confining such investigation to school buildings. Industrial plants, factories, hotels, office buildings and private residences, for their owners and occupants protection, should be subjected to such a sanitary check-up as a safety procedure.

Hospitals, more than any other group of buildings, should, at regular intervals, as fire drills are carried out, check up on their individual plumbing problems to guarantee against the existence of unknown or unsuspected cross currents, or short circuits, between sewer outflow and water inflow. F.G.C.

A Valuable Adjunct

AT THE recent meeting of the American Association for the Study of Goiter one of the speakers in referring to the metabolic machine designated it as "the little old tin box that should be kicked down the back stairs." In so doing he merely expressed an oft repeated criticism of a truly valuable adjunct to the diagnostic armamentarium of every progressive physician. Frequently the metabolic report does not coincide with the clinical findings, but the basal metabolic rate in general should not be condemned because of such discrepancies. The fault in a particular instance may not be in the incorrectness of the report, but rather in the interpretation which the physician places upon it.

For example, a rate of plus twenty per cent in a case of long standing toxic adenomatous goiter may be of far more significance than one of plus fifty per cent in an early case of exophthalmic goiter. In the former the rate should not be looked upon as an index of the patient's ability to successfully undergo thyroidectomy. If the test is accurate, it only indicates that hyperthyroidism has developed in an adenomatous goiter. As such it should merely confirm the clinical history and physical findings of a slowly progressive weight and strength loss, cardiovascular changes as evidenced by chronic myocarditis, arrhythmia, and hypertension. The patient with an early case of exophthalmic goiter, given the proper preparation, may undergo operation with far less risk even though the metabolic rate is much higher.

On the other hand, a basal metabolic rate of plus eighty or ninety per cent in Graves' disease, though the illness is of short duration, warns of an acute fulminating type that demands every effort of the internist and surgeon to carry the case through to a successful completion. A rate of plus thirty per cent or less indicates, in a case of short duration, that the disease is comparatively mild and that a primary thyroidectomy may be performed without much fear of postoperative reaction provided the hyperthyroidism is properly controlled by iodine before and after operation.

There are certain exceptions, however, that the physician must guard against. A patient with a rate not higher than plus twenty per cent, who gives a history having gained rather than lost weight, who shows no exophthalmos, has little tremor and does not appear toxic, may prove deceptive. Following thyroidectomy performed in the usual manner and with no immediate operative reaction, such a patient may within a few hours go into a fatal postoperative crisis, in spite of unlimited amounts of iodine, fluids, oxygen, etc. A report of twenty-five of the leading thyroid surgeons over a short period showed twenty-five such fatalities. These deaths are directly attributable to the misuse of iodine given to patients with exophthalmic goiter over a period of weeks or months and producing a condition known as "iodine fast hyperthyroidism." The basal metabolic rate does not indicate the severity of the postoperative reaction that may be expected.

The metabolic rate is a valuable guide in following the preoperative and postoperative progress of the patient. It does so more accurately than any other clinical test. It enables the surgeon to estimate the degree of

preoperative improvement and the extent of the operation to be attempted. If sufficient tissue has not been removed at operation the basal metabolic rate is the most accurate index of the degree of persistence of hyperthyroidism and the possibility of effecting a cure without further surgery.

The basal metabolic rate is of invaluable aid in ruling out the possibility of hyperthyroidism in nervous, high-strung, underweight individuals having a rapid pulse and a symmetrical enlargement of the thyroid. Such cases may not confuse the experienced clinician but even he welcomes the confirmation of his tentative diagnosis.

A normal rate usually eliminates the possibility of hyperthyroidism unless the patient has been on iodine. Mild hypothyroidism might often be overlooked were it not for the help of the metabolic rate, and it is in this largely unexplored field that the rate can be of inestimable value. Frank cases of myxedema should be recognized, yet such patients are not infrequently treated for myocarditis or nephritis until a metabolic rate discloses the true condition.

A basal metabolic rate must often be considered in the same light as is the white blood count in acute appendicitis or the Wassermann test in a possible case of lues. Metabolic tests are not infrequently inaccurate and as such have caused the clinician to lose confidence in their value. Such inaccuracy may be due to a poorly constructed machine, to a good machine that has been allowed to develop leaks, to an error by the technician, to a non-cooperative patient, or to one unduly nervous and apprehensive who breathes too rapidly, to the presence of fever, nasal obstruction, or a nose clip that disturbs the patient. Exercise or rather the lack of sufficient rest preceding a test, or the digestion of food may be other factors altering the rate.

The value of a single metabolic rate is frequently questionable. A second or even a third determination, after the patient has accustomed himself to the test, may show a wide variation from the initial report. Too many needless thyroid operations are being performed, because credence is given to a single inaccurate metabolic report rather than to the clinical findings. In a patient under thirty years of age the question to determine is whether or not he has an exophthalmic goiter. Age alone rules out the possibility of toxic adenoma. In the absence of weight loss, increased appetite, high pulse pressure and tachycardia, a diagnosis of exophthalmic goiter is doubtful regardless of the metabolic report. In any case, the disease never calls for emergency surgery. A few weeks time, another test, and a ten days' trial of iodine should lead to confirmation or rejection of the metabolic report.

If the basal metabolic rate is determined on a reliable machine and under accurate conditions, it should afford the physician or surgeon information that is of real help in the successful care of his patient. A. S. J.

Progress in Exhibits

THE scientific exhibits of progress in medicine designed for lay education have been models of accuracy, but in the past they have been notably lacking in that design and arrangement that of itself pictured the story in a manner interesting and intelligible to the passerby.

Within the Hall of Science of the Century of Progress Exposition, there were evolved scientific exhibits that attracted hundreds of thousands by their attractive, withal accurate, portrayals. Those exhibits marked a great step forward in exhibits as such,—taught a lesson that has not and will not be forgotten.

The director of the Hall of Science, Dean Carey of Marquette, has now published a profusely illustrated book describing the Medical Science exhibits.* This volume will be an inspirational handbook for those who prepare future exhibits, as well as a narrative of a great exposition of the progress in science, interesting to all physicians.

* "A Century of Progress—Medical Science Exhibits"; 204 pp., illust.; $2.00; Patrick J. Byrne, 624 South Michigan Avenue, Chicago.

. . . . THE PRESIDENT'S PAGE . . . .

Next Month

IN MADISON next month will be held the annual meeting of the State Medical Society of Wisconsin. The Committee on Scientific Work has prepared an excellent and outstanding program, with one day devoted exclusively to the various aspects of cancer, and the problems relating thereto. These papers and discussions will be presented by men of international reputation, men who are authorities upon the subjects upon which they will speak. In addition to this, there are two other days during which will be given papers dealing with many of the everyday problems of medical practice.

In justice to himself and to his patients, no physician in active practice in the State can afford to miss this meeting, if it is at all possible for him to attend. He will obtain from it an intellectual stimulus which he can get in no other way. In addition he will meet old friends, will have an opportunity to attend fraternity and college luncheons, and, unless I am greatly mistaken, will return home feeling that the world is not such a bad place after all, and with renewed zest to meet the problems and vexations of everyday practice.

Bring your wives with you! Let me assure you that they will not be a drag upon you, or cramp your style in the slightest degree; the Woman's Auxiliary will see to that. As a matter of fact, you will probably not see them all day, even if you wish to, and in all likelihood you will be ready for bed long before they are. Give the little woman a break!

To every member in the State, let me again point out and emphasize that the State Medical Society is *your* Society, and exists only to carry out your wishes and to further your interests. In the very nature of things, however, this can only be done through the component county societies, working through their properly accredited delegates.

By this time, the various delegates who will make up the House will have been selected, together with the alternates. But it is not enough to simply elect these delegates, and send them to the meeting; this is neither fair to the delegates, nor to the members of the various county societies. They must know the wishes of their members, and be prepared to present them. To this end, every county society should hold a meeting, with as full an attendance as possible. Any questions which individual members may have in regard to state medical society affairs should be brought up and freely discussed; the correspondence from the office of the State Secretary should be considered, and any necessary action taken. In this way, and in this way only, the delegates and alternates obtain information in regard to the wishes and opinions of the county societies which elect them; with such preparation, the delegates are in a position to attend the sessions of the House, and to properly represent their various societies. It is to be hoped that meetings such as I have just outlined have already been held; if not, there is yet time before the meeting of the State Society for special meetings to be held.

In conclusion, let me again urge every member of the State Society, and every member of the Woman's Auxiliary, who can possibly arrange it, to come to Madison next month. I look forward to seeing you there.

Ralph M. Carter.

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Special Message from the President

KNOWING the interest that members of the Woman's Auxiliary have shown in the annual meetings in the past, I feel it is only natural for me to expect every member who can make it possible to meet me in Madison on September 8, 9, 10, and 11.

I would like every woman attending the medical convention with her husband, whether she be a member of the Auxiliary or not, to feel that she has a special invitation not alone to attend the business meetings of the Auxiliary, but that she is invited to register and enjoy the many entertainments so excellently arranged by the women of the Dane County Auxiliary.

Do plan to come so that we may have a successful session and a good time.

MRS. F. G. CONNELL, *President.*

Preliminary Program for Auxiliary Announced

WITH headquarters at the Hotel Loraine, a full program for the Women's Auxiliary has been jointly announced by Mrs. F. Gregory Connell, Oshkosh, president; Mrs. R. H. Jackson, Madison. chairman of local arrangements; and Mrs. Homer Carter, Madison, president of the Dane County Auxiliary. The general program will be preceded by a 6:30 dinner meeting on Tuesday evening, September 8, at the Hotel Loraine for the Executive Board. Presidents and presidents-elect of the county auxiliaries and officers of the State Auxiliary will be in attendance at this dinner. The program for Wednesday and Thursday follows:

WEDNESDAY, SEPTEMBER 9

A. M.

10:00—General Meeting, Crystal Ballroom, Loraine Hotel.
Invocation—
Address of Welcome—Mrs. Homer Carter, Madison, president, Auxiliary of Dane County Medical Society.
Response—Mrs. F. Gregory Connell, Oshkosh, president, Auxiliary of State Medical Society of Wisconsin.
Business Session.

P. M.

12:30—Luncheon, Loraine Hotel—Main dining room—Lobby floor, $1. Music.
2:30–3:30—Automobile trip about Madison.
3:30–5:00—Tea at Executive Mansion.
Harpist—Margaret Rupp Cooper.
8:00—Civic Theatre, complimentary performance for members and guests of the Auxiliary, "The Way to Treat a Woman."

THURSDAY, SEPTEMBER 10

A. M.

9:30—General Meeting, Crystal Ballroom, Loraine Hotel.
Business Session and Election of Officers.
Induction of President, Mrs. C. A. Harper, Madison.
Address—Dr. Morris Fishbein, Editor of Journal of American Medical Association and Hygeia.

P. M.

1:00—Luncheon and Bridge, Maple Bluff Country Club, $1.
Transportation from the hotel.
3:30—Post-Convention Board Meeting, Maple Bluff Country Club.
6:45—Annual Dinner and Dance (informal), Crystal Ballroom, Loraine Hotel.
Speaker of evening—Dr. Morris Fishbein.

Delegates and Alternates—Woman's Auxiliary

Brown–Kewaunee–Door County

Delegates—

Mrs. Arthur J. McCarey ----------Green Bay
Mrs. D. F. Gosin ----------Green Bay

Alternates—

Mrs. E. S. Schmidt ----------Green Bay
Mrs. J. P. Lenfestey ----------De Pere

Dane County

Delegates—

Mrs. Homer Carter ----------Madison
Mrs. Stanley Briggs ----------Madison

Alternates—

Mrs. Harold Marsh ----------Madison
Mrs. H. L. Greene ----------Madison

Fond du Lac County

Delegates—

Mrs. J. Connell ----------Fond du Lac
Mrs. L. C. Gardner ----------Fond du Lac

Alternates—

Mrs. R. G. Mills ----------Fond du Lac
Mrs. J. S. Wier ----------Fond du Lac

Kenosha County

Delegates—

Mrs. Lulu Murphy ----------Kenosha
Mrs. A. L. Mayfield ----------Kenosha

Alternates—

Mrs. H. Schwartz ----------Kenosha
Mrs. I. Bowing ----------Kenosha

Marinette–Florence County

Delegates—

Mrs. H. W. Haasl ----------Peshtigo
Mrs. J. V. May ----------Marinette

Alternates—

Mrs. H. L. Jorgenson ----------Marinette
Mrs. M. D. Bird ----------Marinette

Milwaukee County

Delegates—

Mrs. Harry Heeb ----------Milwaukee
Mrs. Francis Murphy ----------Wauwatosa
Mrs. Robert McDonald ----------Milwaukee
Mrs. James Sargent ----------Milwaukee
Mrs. J. Gurney Taylor ----------Milwaukee
Mrs. Louis Warfield ----------Milwaukee
Mrs. William Jermain ----------Milwaukee

Alternates—

Mrs. Earl Baum ----------Milwaukee
Mrs. Bernard Churchill ----------Milwaukee
Mrs. Norbert Enzer ----------Milwaukee
Mrs. John McCabe ----------Milwaukee
Mrs. William Grotjan ----------Milwaukee
Mrs. William O'Malley ----------Wauwatosa
Mrs. Irwin Schulz ----------Wauwatosa

Outagamie County

Delegates—

Mrs. J. J. Laird ----------Black Creek
Mrs. A. E. Rector ----------Appleton

Alternates—

Mrs. C. D. Neidhold ----------Appleton
Mrs. W. H. Towne ----------Hortonville

Portage County

Delegates—

Mrs. G. W. Reis ----------Junction City
Mrs. E. E. Kidder ----------Stevens Point

Alternates—

Mrs. Fred A. Marrs ----------Stevens Point
Mrs. Harold Coon ----------Stevens Point

Racine County

Delegates—

Mrs. I. F. Thompson ----------Racine
Mrs. F. B. Marek ----------Racine

Alternates—

Mrs. J. F. Henken ----------Racine
Mrs. E. J. Schneller ----------Racine

Waukesha County

Delegates—

Mrs. R. E. Davies ----------Waukesha
Mrs. H. G. B. Nixon----------Hartland

Alternates—

Mrs. J. B. Noble ----------Waukesha
Mrs. W. H. Oatway ----------Waukesha

Green Lake–Waushara–Adams County

Delegates—

Mrs. C. U. Senn ----------Ripon
Mrs. Orvil O'Neal ----------Ripon

Alternates—

Mrs. A. J. Wiesender ----------Berlin
Mrs. B. E. Scott ----------Berlin

Manitowoc County

Delegates—

Mrs. W. E. Donohue ----------Manitowoc
Mrs. M. P. Andrews ----------Manitowoc

Alternates—

Mrs. C. H. Barnstein ----------Newton

Winnebago County

Delegates—

Mrs. T. D. Smith ----------Neenah
Mrs. E. B. Pfefferkorn ----------Oshkosh

Alternates—

Mrs. M. N. Pitz ----------Neenah
Mrs. Henry Romberg ----------Oshkosh

Society Proceedings

FOND DU LAC

The Fond du Lac County Medical Society held its regular monthly meeting on May 21 at the Hotel Retlaw, Fond du Lac. Dr. Merritt L. Jones, Wausau, gave an illustrated address on "Back Pain."

PIERCE–ST. CROIX

The monthly meeting of the Pierce–St. Croix County Medical Society, at which Dr. J. W. Livingstone, president, presided, was held at the Hotel Hudson, in Hudson, on July 16.

TRI-COUNTY MEDICAL SOCIETY

On July 29 Dr. John Docter of Racine read a paper on "Why Breast Feeding" at the meeting of the Tri-County Medical Society at Lake Geneva.

WAUKESHA COUNTY

The Waukesha County Medical Society held a meeting at Merrill Hills Country Club on July 8. There were about fifty members and guests in attendance.

WINNEBAGO COUNTY

The Winnebago County Medical Society met at Sunnyview Sanatorium on July 14. A proposed tuberculin-testing program to be presented to the sanatorium committees and members of the county boards of Winnebago and Fond du Lac Counties was discussed.

FIFTH COUNCILOR DISTRICT

The Fifth Councilor District held its annual meeting at Gonring's Resort, Big Cedar Lake, on June 27. Among the speakers were Dr. A. B. Rivers and Dr. J. T. Priestley of Rochester, Minnesota, Dr. E. L. Cornell and Dr. R. B. Bettman of Chicago, and Dr. H. E. Froede of Jackson. Two motion pictures of operations in natural colors were presented by H. B. Vogel, official photographer of the Illinois State Medical Society.

The wives of the members were guests of Mrs. H. Meyer Lynch at her summer home during the afternoon. The interval between the adjournment of the physicians' meeting and dinner was taken up with a unique "bathing beauty" review and contest, in which more than twenty of the wives participated.

At the brief business meeting, immediately following dinner, Dr. Eugene Gates of Two Rivers was elected president, to succeed Dr. H. Meyer Lynch, and Dr. A. C. Radloff of Plymouth was reelected secretary.

An illustrated talk on medical practice in Labrador, which was presented by Dr. C. W. Eberbach of Milwaukee, was a part of the after dinner program. Dr. Ralph Carter, president of the State Medical Society, also gave a brief address.

SIXTH COUNCILOR DISTRICT

About 200 physicians were present at the annual meeting of the Sixth Councilor District on June 30, at Fond du Lac. The program opened at St. Agnes Hospital with presentation of papers by five Fond du Lac members, as follows:

1. "The Injection Treatment of Hernia," by Dr. A. C. Florin.
2. "The Diagnosis and Management of Occiput Posterior," by Dr. J. C. Devine.
3. "Premature Infants," by Dr. E. H. Pawsat.
4. "The Etiology of Pruritus," by Dr. J. C. Yockey.
5. "The Medical Management of Peptic Ulcer," by Dr. A. M. Hutter.

The afternoon program at St. Agnes Hospital Nurse's Home was as follows:

"Simplified Obstetric Care," by Dr. John W. Harris, Professor of Obstetrics, University of Wisconsin, Madison.

"Immunization Procedures of the Various Infectious Diseases," by Dr. M. G. Peterman, Professor of Pediatrics, Marquette University, Milwaukee.

"The Diagnosis and Management of Obscure Abdominal Lesions," by Dr. Harry E. Mock, Professor of Surgery, Northwestern University, Chicago. Discussion: Dr. Clarence Brown.

"The Medical Management of Gallbladder Disease," by Dr. Clarence Brown, Associate Professor of Medicine, Northwestern University, Chicago. Discussion: Dr. Harry E. Mock.

Officers elected were: Dr. Albert E. Rector, Appleton, president; Dr. P. R. Minahan, Green Bay, vice-president; and Dr. G. W. Carlson, Appleton, secretary.

An evening banquet was held at the Hotel Retlaw for members and their wives. Dr. W. F. Braasch, Mayo Clinic, Rochester, Minnesota, who was the principal speaker, gave an address on "The Future of Medicine Under State Control."

NINTH COUNCILOR DISTRICT

The Ninth Councilor District held its summer meeting in Marshfield, on July 23.

In the afternoon clinical demonstrations were held at St. Joseph's Hospital, as follows:

1. "Pneumonia, Empyema, Lung Abscess," by Dr. F. A. Boeckman.
2. "Clinical Experiences With the New Insulin (Protamine-Insulinate)," by Dr. R. S. Baldwin.
3. "Hearts in Acute Infection," by Dr. K. H. Doege.
4. "Carcinoma of the Colon," by Dr. P. F. Doege.
5. "Bladder Tumors," by Dr. W. G. Sexton.
6. "Multiple Brain Abscesses Following Ear Disease," by Dr. L. A. Copps.

After dinner at the Hotel Charles, the following papers were read:

1. "Gallbladder Disease," by Dr. Waltman Walters, Professor of Surgery, University of Minnesota Post-Graduate Medical School, Rochester, Minnesota.
2. "Some Aspects of Heart Disease and Their Treatment," by Dr. Francis D. Murphy, Professor of Medicine, Marquette University, Milwaukee, Wisconsin.

CENTRAL WISCONSIN SOCIETY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

A meeting of the Central Wisconsin Society of Ophthalmology and Otolaryngology, which was attended by about thirty-five physicians, was held at Appleton, on June 7 and 8. The program was as follows:

SUNDAY, JUNE 7:

1:30 P. M.—Golf at Butte des Mort Golf Club followed by dinner.

MONDAY, JUNE 8:

9:30 A. M.—"Uveitis," by Dr. Harry Gradle, Chicago.

"Allergic Manifestations in the Eye, Nose, and Throat," by Dr. William A. Kennedy, St. Paul.

12:30 P. M.—Dinner at the Riverview Country Club.

2:00 P. M.—"Foreign Bodies in Esophagus and Bronchi, with Complications," by Dr. Fred S. Cook, Eau Claire.

"Modern Surgical Treatment for Detachment of the Retina," by Dr. Harry Gradle, Chicago.

WISCONSIN HOMEOPATHIC SOCIETY

The seventy-first annual meeting of the Wisconsin Homeopathic Society was held at the Hotel Loraine, Madison, in May. Among those appearing on the program were Dr. A. G. Koehler of Oshkosh and Dr. Wilbur N. Linn of Oshkosh. The newly elected officers are Dr. A. G. Koehler, president; Dr. A. L. Burdick of Janesville, vice-president; and Dr. F. E. Kosanke of Watertown, secretary-treasurer.

NEWS ITEMS AND PERSONALS

On August 1, Dr. C. F. Harris, formerly associated with Dr. J. V. Herzog, Elkhorn, became head of the Department of Eye, Ear, Nose, and Throat at the Manitowoc Clinic.

—△—

At the regular meeting of the Ashland General Hospital staff Dr. Clifford A. Grand was elected president; Dr. J. W. Prentice was elected secretary.

—△—

Dr. J. C. Troxel of Appleton has been named physician for the Outagamie County Asylum, to succeed the late Dr. F. P. Dohearty who was asylum physician for several years.

—△—

Dr. J. W. Lowe of Merrillan has accepted a position with the State Board of Health as health supervisor in the district comprising the counties of Ashland, Bayfield, Burnett, Douglas, Iron, Sawyer, and Washburn, with an office at Ashland.

—△—

The following four appointments to the State Board of Medical Examiners have been announced by Gov. Philip La Follette: Dr. C. H. Cremer, Cashton, Dr. A. J. Gates, Tigerton, Dr. Henry J. Gramling, and Dr. Henry McMahon, Milwaukee.

—△—

Dr. A. A. Sinaiko has re-opened his offices in Stevens Point after a ten months' clinical tour of Europe and a round-the-world trip.

—△—

Dr. R. A. Mullen of East Troy has sold his practice and will locate in La Grange, Illinois, where he will do hospital work and take up a special course in children's diseases.

Dr. Paul Doege of the Marshfield Clinic, has returned from a clinical trip through the East, where he visited the New York Skin and Cancer Hospital, the Rockefeller Institute for Medical Research, Harvard Medical School, and Peter Bent Brigham Hospital.

—△—

Dr. H. J. Meier, who has been associated with Dr. J. F. Bennett at Burlington for the last five years, will establish a practice in Cold Water, Michigan.

—△—

Dr. and Mrs. A. L. Myrick and daughter, Beth, of De Soto, left on June 29 for the South for a vacation.

—△—

Dr. J. A. Diamond, Frederic, suffered a fracture of the left leg in an automobile accident on July 18.

—△—

Mrs. Rose H. Wright, wife of Dr. J. C. Wright of Antigo, died on July 3 after a short illness. Doctor Wright is one of the oldest county society secretaries, in terms of years of service, in the State, and for a great many years has represented his Society in the House of Delegates.

—△—

Dr. James C. Sargent, Milwaukee, was installed as president of the Rotary Club of that city on June 30.

—△—

Dr. S. E. Gavin, president-elect of the State Medical Society, discussed state medicine at the weekly luncheon of the Kiwanis Club at the Hotel Retlaw, Fond du Lac, on July 7. Dr. J. Newton Sisk, Mad-

ison, also talked on this subject before the local Kiwanis Club on July 9.

—△—

New developments and discoveries in the fields of medicine and surgery were discussed by Dr. A. C. Florin in an address before the Fond du Lac Lions Club at a meeting on July 22.

DEATHS

Dr. A. B. Zwaska, Beloit, died on June 30. He was born in Kewaskum, Wisconsin, in 1890, and was a graduate of Marquette University Medical School. He practiced in Rockton, Illinois, and in Beloit, Wisconsin, for twenty years, being on the staff of the Beloit Municipal Hospital. He also served for several years as physician for the Walter Graham Post of the American Legion. A World War veteran, he served overseas as first lieutenant in the medical corps in the 346th Infantry, 87th Division.

He was a member of the Rock County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

Surviving are three sisters, Mrs. Clara Yannke, of Milwaukee, Mrs. Cecelia Arndt of Fond du Lac, and Mrs. Veronica McCullough of Rockton, Illinois, and three brothers, Frank of Milwaukee, John of Auburndale, and Leo of Racine.

MARRIAGES

Dr. Joseph P. Wild, Hancock, and Miss Cecelia Wolf, Kaukauna, on June 20.

Dr. John A. Thranow, Milwaukee, and Miss Josephine Price, also of Milwaukee, on July 11.

Dr. Oliver M. Layton, Fond du Lac, and Miss Ruth Murphy, also of Fond du Lac.

Dr. S. Megna, Milwaukee, and Miss Glendora Christensen, Two Rivers, on July 15.

Dr. S. M. B. Smith, Wausau, and Mrs. Elsa Kircher, Hollywood, California, on June 22.

SOCIETY RECORDS

Changes in Address

H. J. Meier, Burlington, to Cold Water, Michigan.

R. A. Mullen, East Troy, to La Grange, Illinois.

C. N. Neupert, Janesville, to 516 E. Gorham, Madison.

W. G. Huibregtse, Oostburg, to Sheboygan Clinic, Sheboygan.

G. N. Pratt, Neenah, to Menasha.

V. A. Chapman, Los Angeles, to 324 E. Wis. Ave., Milwaukee.

K. S. Bulley, Statesan, to 347 Lawndale Ave., Aurora, Illinois.

John Lowe, Merrillan, to City Hall, Ashland.

C. F. Harris, Elkhorn, to Manitowoc Clinic, Manitowoc.

Correction!

Dr. Dean S. Smith, of La Crosse, who was reported in this column last month as having moved to Flint, Michigan, notified us that we have been misinformed. He has no intention of leaving La Crosse.

CORRESPONDENCE

American Medical Association
Bureau of Health and Public Instruction
Chicago, July 8, 1936.

Mr. J. G. Crownhart, Mgr. Editor,
Wisconsin Medical Journal,
Madison, Wisconsin.

Dear Mr. Crownhart: Attached are some resolutions passed by the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, which were adopted at the meeting of that committee in St. Louis, February, 1936.

In view of the potential importance of this problem, the publication of the resolutions or editorial comment thereon, or both, would be appreciated.

Very truly yours,
W. W. Bauer, M. D.

Resolution Adopted by the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association
June, 1936

Moved by Bauer, seconded by Leland:

Whereas, At the annual meeting of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association held at St. Louis, Mo., February 25, 1936, a presentation was made by Major Joel I. Connolly, of the Chicago Board of Health, relating to possible health hazards in apparently modern plumbing installations in public buildings, and

Whereas, It was manifest in the said presentation that plumbing fixtures which have been generally regarded as safe and sanitary in design may in fact constitute a real and serious health hazard by reason of the danger of back siphonage and contamination of water supply mains, and

Whereas, The probability exists that such apparently modern, safe and sanitary plumbing installations may exist in numerous school buildings in the United States, and

Whereas, The existence of such apparently safe, modern and sanitary plumbing installations and reliance upon them brings about a sense of false security, therefore, be it

Resolved, By the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association that this Committee apprehends the possibility of danger to the health of school children from apparently safe,

modern and sanitary plumbing installations in school buildings, and be it further

Resolved, That the said Joint Committee earnestly recommends to all school boards and school executives that surveys be instituted by competent engineers to ascertain whether or not the danger of back siphonage and consequent pollution of water supply mains exist in plumbing installations within their jurisdictions, and that such surveys be followed by prompt corrective measures, and be it further

Resolved, That these resolutions be offered for publication to all journals dealing with public health, health education and general education.

"ABANDONED ON DOORSTEP"

League of Wisconsin Municipalities
Madison, Wisconsin, July 24, 1936.

Mr. J. G. Crownhart, Secretary,
State Medical Society of Wisconsin,
119 East Washington Ave.,
Madison, Wisconsin.

Dear Mr. Crownhart: On looking over the material in the July, 1936, issue of your journal I have been interested to note that in discussing the problem of medical care for the indigent you have referred to the manner in which local officials are discharging their responsibilities, but that you have totally failed to refer in any way to the fact that the present state administration has not raised any funds this year as the State's share of the cost of relief. In other words, the financial problem has been abandoned completely on the local doorstep. In view of the fact that the records show that local government is now spending almost $2,000,000 a month in paying for direct relief costs, the local share of WPA costs and the local share of the social security program, local government is fast approaching a crisis because of the fact that there is considerable doubt that the money will be available to continue this program up until the end of the year. This sum is almost double what local government spent last year for the same purpose. Hence, there is considerable danger that it may be impossible to maintain present standards.

I think the public must soon come to a realization that the State government cannot continue to load additional financial burdens upon local government when substantially the only source of revenue that local government has is the general property tax. For many years the State government has boasted that it does not levy a general property tax but of course this is possible only through this shifting of the burden.

You may be interested to know that the state government in Michigan, Illinois, Iowa and Minnesota, the four states bordering Wisconsin, have made funds available so that the state will bear a reasonable share of the cost of relief this year which is in distinct contrast to what has been done in this State.

It also seems to me that the State Board of Health would have been more effective if in their resolution published in your footnote they had called attention to the fact that the State was evading its responsibility for helping to finance adequate standards.

Very truly yours,
F. N. MacMillin,
Executive Secretary.

MICHIGAN MEETING

Michigan State Medical Society
Lansing, Michigan, July 16, 1936.

The State Medical Society of Wisconsin,
119 East Washington Avenue,
Madison, Wisconsin.

Attention: Mr. J. George Crownhart, Secretary.

Gentlemen: A most cordial invitation is extended the members of your medical society to attend the 71st Annual Meeting of the Michigan State Medical Society to be held in the Book-Cadillac Hotel, Detroit, September 21 to 24, 1936.

A sincere welcome will be accorded to each and every one of your physicians who will visit the Detroit Meeting; all courtesies and privileges will be extended.

The program is varied and interesting: The business of the House of Delegates and many social functions (including a baseball game at Navin Field, and invitational golf at Detroit Golf Club) will be events of Monday and Tuesday, September 21 and 22.

The Scientific Program will begin with the first General Session on Tuesday evening in the Grand Ballroom of the Book-Cadillac Hotel, and will continue Wednesday and Thursday, September 23 and 24.

The Scientific Program will include such outstanding men as:

Charles Gordon Heyd, Vice President, American Medical Association, New York.

Dean DeWitt Lewis, Professor of Surgery, Johns Hopkins School of Medicine, Baltimore, Maryland.

C. S. O'Brien, Professor of Ophthalmology, State University of Iowa College of Medicine, Iowa City, Iowa.

Fred Wise, Professor of Clinical Dermatology & Syphilology, New York Post-Graduate Medical School, Columbia University, New York.

George Rudolph Herrmann, Professor of Clinical Medicine, University of Texas School of Medicine, Galveston, Texas.

B. R. Kirklin, Professor of Radiology, University of Minnesota Graduate School, Rochester, Minnesota.

Emil Novak, Associate Professor of Obstetrics, Johns Hopkins School of Medicine, Baltimore, Maryland.

George W. Crile, Professor Emeritus of Surgery, Western Reserve University School of Medicine, Cleveland, Ohio.

Isidore Friesner, Otology, Laryngology, Rhinology, New York.
Albert L. Brown, Ophthalmology, Cincinnati, Ohio.

In addition to these out-of-state guest speakers, the flower of the profession in Detroit and throughout Michigan, to the number of seventy-nine, will participate in this the most auspicious program ever presented by the Michigan State Medical Society.

The Clinical Sessions will be held on Wednesday and Thursday mornings. The Sections of Medicine, Surgery, Pediatrics, Obstetrics and Gynecology, and Dermatology and Syphilology will have clinics in Detroit hospitals; the Radiological Section and the Ophthalmology and Otolaryngology Section will hold their programs in the Book-Cadillac Hotel.

The Exhibit of 125 spaces will be an extraordinary display on the fourth and fifth floors of the Book-Cadillac Hotel. The Scientific will total 55 booths; the Technical will have 70 booths!

We sincerely trust that many members of your association will be able to accept this, our sincere, invitation.

Very fraternally yours,
GROVER C. PENBERTHY, M. D.,
President.

C. T. EKELUND, M. D.,
Secretary.

DRAMA OF "THE GUARDIANS OF YOUR HEALTH"

Each Tuesday, Wednesday and Thursday the State Medical Society presents "The Guardians of Your Health" over the state-owned radio station WHA, Madison (940). These health messages are broadcast at 9:00 a. m.

The schedule for this month:

Aug. 11—The Story of Sue—Sue Wins an Argument.
Aug. 12—Snoring.
Aug. 13—How To Follow The Doctor's Orders.
Aug. 18—Three-Fingered Poison.
Aug. 19—Nosebleeds.
Aug. 20—Who Knows More Than The Doctors.
Aug. 25—Boils.
Aug. 26—Heart.
Aug. 27—Questions and Answers.
Sept. 1—School Cleanliness.
Sept. 2—When Doctors Get Together.
Sept. 3—Interview Stovall Re Cancer Institute.
Sept. 4—Interview Annual Meeting.
Sept. 5—Interview Annual Meeting.
Sept. 6—Interview Annual Meeting.

Postgraduate Circuits in Obstetrics and Pediatrics Announced for Southwestern Wisconsin on August 10

THE sixth of a series of circuits for postgraduate study in obstetrics and pediatrics has been announced for southwestern Wisconsin beginning August 10. Dr. Otto H. Schwarz, Washington University, St. Louis, will teach obstetrics, and Dr. M. G. Peterman, Marquette University Medical School, Milwaukee, will teach pediatrics in this circuit.

This postgraduate course is under the auspices of the Bureau of Child Welfare of the Wisconsin State Board of Health and is financed from Social Security Funds upon request of the State Medical Society of Wisconsin.

The schedule for terms in the new circuit is listed, and it is to be noted that no meetings will be held during the week of September 7 to permit of attendance at the Cancer Institute and the Ninety-Fifth Anniversary Meeting of the State Medical Society of Wisconsin. The course will extend over a six weeks' period with afternoon sessions beginning at four o'clock and, after recess, continuing to seven o'clock.

CIRCUIT SIX

August 10—September 25, 1936

Otto H. Schwarz, M.D., Washington University, St. Louis, Missouri.

M. G. Peterman, M.D., Marquette University Medical School, Milwaukee.

Sauk City—High School—Monday, August 10, 17, 24, 31, September 14, and 21. Eastern Sauk, western one-third Dane, southwestern Columbia, and northwestern Iowa Counties.

Platteville—Civic Memorial Building, Council Chamber—Tuesday, August 11, 18, 25, September 1, 15, and 22. Lafayette, Iowa, southern and southeastern Grant Counties.

Prairie du Chien — Court House, County Court — Wednesday, August 12, 19, 26, and September 2, 16, and 23. Crawford, northern and northwestern Grant Counties.

Richland Center—Club Room, Auditorium—Thursday, August 13, 20, 27, September 3, 17, and 24. Richland and western Sauk Counties.

Portage—City Hall, Business Men's Room—Friday, August 14, 21, 28, September 4, 18, and 25. Marquette and Columbia Counties.

Program for Cancer Institute Arranged; Two-Day Session to Precede State Meeting

MONDAY, SEPTEMBER 7

Service Memorial Institute
Room 230

9:15 Address to Visitors, Faculty and Medical Students.
Glenn Frank, President, University of Wisconsin, Madison, Wisconsin.

9:30 CANCER AND INHERITANCE
The Influence of Extrinsic Factors in the Development of Induced Tumors in Animals.
Dr. Leiv Kreyberg, University of Oslo, Oslo, Norway.

10:15 The Influence of Intrinsic Factors in the Development of Tumors in Mice.
Dr. C. C. Little, Director, Roscoe B. Jackson Laboratory for Cancer Research, Bar Harbor, Maine.

11:00 Familial Occurrence of Cancer.
Dr. Madge Thurlow Macklin, Associate Professor of Histology and Embryology, University of Western Ontario, London, Ontario.

2:00 CANCER AND INHERITANCE

Service Memorial Institute
Room 230

Hormones and the Development of Atypical Growths and Malignant Tumors.
Dr. Edgar Allen, Professor of Anatomy and Chairman of Department, Yale University Medical School, New Haven, Connecticut.

2:45 Carcinogenic Substances in the Production of Tumors in Laboratory Animals.
Dr. H. B. Andervont, Biologist, U. S. Public Health Service, Boston, Massachusetts.

3:45 ROUND TABLES

1. DIAGNOSTIC PROBLEMS IN THE RECOGNITION OF EARLY CANCER

Room 230

Dr. S. P. Reimann, Leader, Pathologist and Director of the Research Institute of the Lankenau Hospital; professor of Experimental Pathology in the Graduate School of the University of Pennsylvania, Philadelphia, Pa.
Dr. Emil Novak, Associate Gynecologist, Johns Hopkins Medical School, Baltimore, Maryland.
Professor Henry Coutard, Chief of the Department of X-Ray Therapy for Cancer, Radium Institute of the University of Paris, Foundation of Curie, Paris, France.

2. GENETICS — INHERITANCE AND CANCER

Room 506

Dr. Leiv Kreyberg, University of Oslo, Oslo, Norway.
Dr. C. C. Little, Director, Roscoe B. Jackson Laboratory, Bar Harbor, Maine.
Dr. Madge Thurlow Macklin, Associate Professor of Histology and Embryology, University of Western Ontario, London, Ontario.

3. FILTERABLE VIRUSES AND CANCER

Room 301

Dr. J. B. Murphy, Leader, Director of Cancer Research, Rockefeller Institute for Medical Research, New York City.
Professor B. M. Duggar, Professor of Physiological and Applied Botany, University of Wisconsin, Madison, Wisconsin.

MONDAY EVENING, SEPT. 7

Service Memorial Institute
Room 230

Broadcast 8:00 p. m. to 9:00 p. m. over WIBA, Madison, 1280 Kilocycles.

8:00 CANCER, A PUBLIC HEALTH PROBLEM
Dr. James Ewing, Professor of Oncology, Cornell University Medical College; Memorial Hospital for the Treatment of Cancer, New York City.

TUESDAY, SEPTEMBER 8

9:00 SERVICE MEMORIAL INSTITUTE

Room 230

The Influence of Wave Length on the Biological Action of Radiation.
Dr. Gioacchino Failla, Physicist, Cancer Memorial Hospital, New York City.

10:00 The Reaction of Tissue Cells to Irradiation.
Professor Henry Coutard, Chief of the Department of X-Ray Therapy for Cancer; Radium Institute of the University of Paris; Foundation of Curie, Paris, France.

11:00 Tissue Culture in the Study of Cancer.
Dr. Warren H. Lewis, Department of Embryology, Carnegie Institution of Washington, Baltimore, Maryland.

2:00 SERVICE MEMORIAL INSTITUTE

Room 230

The Biology of the Cancer Cell.

Dr. S. P. Reimann, Pathologist and Director of the Research Institute of the Lankenau Hospital.

Professor of Experimental Pathology in the Graduate School of the University of Pennsylvania, Philadelphia, Pa.

2:45 Filterable Viruses in Malignant Neoplasms.

Dr. J. B. Murphy, Director of Cancer Research, Rockefeller Institute for Medical Research, New York City.

3:45 ROUND TABLES

1. SURGERY AND IRRADIATION IN THE TREATMENT OF CANCER

Room 230

Professor Henry Coutard, Leader, Chief of the Department of X-Ray Therapy for Cancer, Radium Institute of the University of Paris, Foundation of Curie, Paris, France.

Dr. Gioacchino Failla, Physicist in Charge of Radiology, Cancer Memorial Hospital, New York City.

Dr. Emil Novak, Johns Hopkins Medical School, Baltimore, Maryland.

2. CYTOLOGY OF MALIGNANT NEOPLASMS

Room 506

Dr. James Ewing, Leader, Professor of Oncology, Cornell University Medical College, Memorial Hospital for the Treatment of Cancer, New York City.

Dr. S. P. Reimann, Pathologist and Director of the Research Institute of the Lankenau Hospital; Professor of Experimental Pathology in the Graduate School of the University of Pennsylvania, Philadelphia, Pa.

Dr. Warren H. Lewis, Department of Embryology, Carnegie Institution of Washington, Baltimore, Maryland.

3. ETIOLOGY OF CANCER

Room 301

Dr. H. B. Andervont, Leader, Biologist, U. S. Public Health Service, Boston, Massachusetts.

Dr. J. B. Murphy, Director of Cancer Research, Rockefeller Institute for Medical Research, New York City.

Dr. Edgar Allen, Professor of Anatomy and Chairman of Department, Yale University Medical School, New Haven, Connecticut.

TUESDAY EVENING, SEPT. 8

Open to the Public

GREAT HALL, MEMORIAL UNION

Broadcast 8:00 p. m. to 9:00 p. m. over WIBA, Madison, 1280 Kilocycles

8:00 A PROGRAM FOR THE CONTROL AND PREVENTION OF CANCER

Dr. C. C. Little, American Society for the Control of Cancer, New York City.

List of Madison Hotels for Those Planning to Attend the 95th Annual Meeting September 9, 10 and 11

HOTEL reservations should be made in the near future by members of the State Medical Society who are planning to attend the 95th Annual Meeting in Madison on Wednesday, Thursday and Friday, September 9, 10 and 11. Requests for reservations should be made directly to the management of the hotel selected.

Following is a list of leading Madison hotels their rates and conveniences.

HOTEL	*ROOM—ONE PERSON*		*ROOM—TWO PERSONS*		
	With Bath	*Without Bath*	*With Bath*		*Without Bath*
			Double Bed	*Twin Beds*	
Loraine	$2.50 up	$2.00	$4.50 up	$5.00 up	$3.50
Park	2.50–3.50	*2.00	4.50–5.00	5.00 to 7.00	*3.50
Belmont	2.50	*2.00	3.50–4.00	4.50–5.00	*2.50
Claridge Apt. Hotel	2.50–3.00	----	3.50–4:00	--------	----

* Includes toilet and running water.

Scientific Program for 95th Anniversary Meeting Wednesday, Thursday, Friday, Sept. 9-11

WEDNESDAY, SEPTEMBER 9

Joint Session With The Cancer Institute

8:00 A. M. Registration and exhibits open, Memorial Union.

9:00 General Session, Great Hall, President R. M. Carter, Green Bay, presiding.

9:00 Biopsy in the Recognition and Treatment of Early Malignancy.
Dr. James Ewing, Prof. Oncol., Cornell University Medical College, Memorial Hospital for the Treatment of Cancer, New York City.

9:40 The Relation of Filterable Viruses to Malignant Neoplasms.
Dr. J. B. Murphy, Director of Cancer Research, Rockefeller Institute for Medical Research, New York City.

10:20 *Recess — Demonstrations in Scientific Exhibits.*

10:40 The Effect of Bacterial Products on the Growth of Malignant Tumors.
Dr. H. B. Andervont, Biologist, U. S. Public Health Service, Boston, Massachusetts.

11:20 The Recognition and Treatment of Early Malignant Lesions of the Uterine Cervix.
Dr. Emil Novak, Assoc. Prof. Obstetrics, University of Maryland School of Medicine and College of Physicians and Surgeons; Assoc. Gynecologist, Johns Hopkins Medical School, Baltimore, Maryland.

Lounge, to be devoted to exhibits.

2:00 P. M. General Session, Great Hall, President R. M. Carter, presiding.

2:00 Treatment of Cancer of the Breast.
Prof. Henry Coutard, Chief of Department of X-Ray Therapy for Cancer, Radium Institute of the University of Paris, Foundation of Curie, Paris, France.

2:40 The Genetic and Constitutional Aspects of Spontaneous and Induced Tumors.
Dr. Leiv Kreyberg, University of Oslo, Oslo, Norway.

3:20 *Recess — Demonstrations in Scientific Exhibits.*

3:40 Glandular Dysfunction and the Development of Malignant Tumors.
Dr. Edgar Allen, Prof. of Anatomy and Chairman of Department, Yale University, New Haven, Connecticut.

4:20 A Study of the Occurrence of Cancer in Different Individuals of the Same Family.
Dr. Madge Thurlow Macklin, Assoc. Prof. Histology and Embryology, University of Western Ontario Medical School, London, Ontario.

6:45 Second Session, House of Delegates, Great Hall, Memorial Union.

8:30 Medical Economics, Speaker to be announced.

9:00 Smoker, Rathskeller, Memorial Union.

THURSDAY, SEPTEMBER 10

7:30 A. M. Elections, House of Delegates, Hotel Loraine.

8:00 Registration and exhibits open, Memorial Union.

8:30 General Session, Great Hall, President R. M. Carter, presiding.

8:30 Present Status of Goiter Prevention in Wisconsin.
Dr. Arnold S. Jackson, Madison.

8:45 The Conservative Management of Hydronephrosis.
Dr. James C. Sargent, Milwaukee.

9:05 Discussion opened by Dr. Meredith F. Campbell, New York City.

9:15 X-Ray Diagnosis of Tumors of the Brain and Spinal Cord.
Dr. John D. Camp, Assoc. Prof. Radiology, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minn.

Thursday A.M. (Cont'd)

9:45 Discussion—Dr. W. J. Bleckwenn, Madison; Dr. John L. Garvey, Milwaukee.

9:55 *Recess — Demonstrations in Scientific Exhibits.*

10:10 The Pathological Significance of Bleeding After the Menopause.
Dr. Richard W. TeLinde, Baltimore, Maryland.

10:40 Discussion — Dr. Eric W. Thurston, La Crosse; Dr. Roland S. Cron, Milwaukee.

11:00 Announcement of Delegate Actions, by the Secretary.

11:10 The Diagnosis and Treatment of Arterial Disease of the Extremities.
Dr. Maurice Hardgrove, Milwaukee.
Discussion—Dr. S. A. Morton, Milwaukee.

11:30 Address of the President-Elect, Dr. Stephen E. Gavin, Fond du Lac.

ROUND TABLE LUNCHEONS, 12:00-1:45 P. M.

1. Surgery—The Present Status of Hernia Repair.
   Dr. Frederick A. Stratton, Milwaukee, Discussion Leader.
2. Pediatrics—Prophylaxis of Communicable Diseases.
   Dr. J. E. Gonce, Madison, Discussion Leader.
3. Bedside Medicine and Useful Drugs.
   Dr. W. S. Middleton, Madison, Discussion Leader.
4. Obstetrics—Recent Advances in Clinical Obstetrics.
   Dr. John W. Harris, Madison, Discussion Leader.
5. Tuberculosis.
   Dr. Oscar Lotz, Milwaukee, Discussion Leader.
6. Fractures—Fractures of the Neck of the Femur.
   Dr. Frederick J. Gaenslen, Milwaukee, Discussion Leader.
7. Eye, Ear, Nose, and Throat—The Allergic Nose and Allied Conditions.
   Dr. William E. Grove, Milwaukee, Discussion Leader.
8. Gastro-Enterology—Irritable Colon.
   Dr. Gjermund Hoyme, Eau Claire, Discussion Leader.
9. Neuro-Psychiatry—Migraine.
   Dr. John L. Garvey, Milwaukee, Discussion Leader.
10. Urology—The Present Status of Bladder Neck Obstruction.
    Dr. Alf H. Gundersen, La Crosse, Discussion Leader.

Great Hall, Memorial Union, where scientific sessions will be held.

11. Radiology—Recent Developments in Gastro-Intestinal Radiology.
    Dr. Frank Mackoy, Milwaukee, Discussion Leader.
    Diverticulosis—Dr. L. W. Paul, Madison
    Stomach and Duodenum—Dr. M. E. Gabor, Milwaukee
    Small Bowel—Dr. R. P. Potter, Marshfield
    Large Bowel—Dr. R. L. Troup, Green Bay
    Gallbladder—Dr. J. N. Sisk, Madison
    Radiation Therapy—Dr. S. A. Morton, Milwaukee
12. Fractures—Fractures of the Ankle.
    Dr. Robert E. Burns, Madison, Discussion Leader.

2:15 P. M. SIX SECTION MEETINGS

1. SECTION ON OBSTETRICS AND GYNECOLOGY. Presiding: Dr. Roland S. Cron, Milwaukee.
   2:15 Bleeding Before the Menopause.
   Dr. Jacob J. Horwitz, Milwaukee.
   2:35 Discussion—Dr. Homer M. Carter, Madison.
   2:55 Bleeding During Early Pregnancy.
   Dr. John Dale Owen, Milwaukee.
   3:25 Discussion—Dr. Robert E. McDonald, Milwaukee.
   3:45 Bleeding During Late Pregnancy.
   Dr. John W. Harris, Madison.
   4:05 Discussion—Dr. Edwin F. Schneiders, Madison.
2. SECTION ON SURGERY. Presiding: Dr. Frederick A. Stratton, Milwaukee.
   2:15 The Treatment of Fractures by the Use of Wire Fixation.
   Dr. John O. Dieterle, Milwaukee.
   2:35 Discussion opened by Dr. John W. Powers, Milwaukee.

Thursday P.M. (Cont'd)

2:45 The Value of the Schilling Count in Acute Appendicitis.
Dr. W. G. Gnagi, Jr., Monroe.
Dr. J. A. Schindler, Monroe.

3:05 Discussion opened by Dr. Erwin R. Schmidt, Madison.

3:15 Determination of Potential Hemorrhage in Cases of Jaundice by the Photo-Electric Method.
Dr. K. K. Nygaard, Mayo Clinic, Rochester, Minnesota, and Dr. M. W. Comfort, Assoc. Prof. Medicine, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minnesota.

3:35 The Treatment of Pulmonary Abscess (Case Reports from the State of Wisconsin General Hospital).
Dr. Peter A. Midelfart, Madison.

3:55 Discussion—Dr. Herbert H. Christensen, Wausau.

4:05 Spinal Cord Injuries, from a Neurosurgical Standpoint.
Dr. David Cleveland, Milwaukee.

4:25 Discussion—Dr. Andrew I. Rosenberger, Milwaukee.

3. SECTION ON UROLOGY. Presiding: Dr. George H. Ewell, Madison.

2:15 Blood Calcium Studies in Urinary Lithiasis.
Dr. C. R. Marquardt, Milwaukee.

2:35 Discussion opened by Dr. Ira Sisk, Madison, and Dr. N. W. Bourne, Milwaukee.

2:45 The Modern Management of Urinary Stone.
Dr. Walter M. Kearns, Milwaukee.

3:05 Discussion opened by Dr. Walter Sexton, Marshfield.
Dr. Alf H. Gundersen, La Crosse.

3:15 The Diagnosis and Treatment of Traumatism and Foreign Bodies in the Urogenital Tract.
Dr. Robert Irwin, Milwaukee.

3:35 Discussion opened by Dr. Harry Culver, Assoc. Prof. Genitourinary Surgery, Northwestern University Medical School, Chicago; Dr. S. J. Silbar, Milwaukee; Dr. George H. Ewell, Madison.

3:45 Tumors of the Urinary Bladder.
Dr. John B. Wear, Madison.

4:05 Discussion opened by Dr. James C. Sargent, Milwaukee.
Dr. H. M. Stang, Eau Claire.

4. SECTION ON EYE, EAR, NOSE AND THROAT. Presiding: Dr. Wellwood M. Nesbit, Madison.

2:15 Some Factors in the Etiology of Iritis.
Dr. Lyman A. Copps, Marshfield.
Dr. G. L. McCormick, Marshfield.

2:35 Discussion by Dr. R. O. Ebert, Oshkosh.

2:45 The Problems of the Hard of Hearing and Deaf.
Dr. Thomas L. Tolan, Milwaukee.

3:05 Discussion opened by Dr. E. G. Nadeau, Green Bay.

3:15 Orthoptic Training in the Treatment of Strabismus.
Dr. John B. Hitz, Milwaukee.

3:35 Discussion opened by Dr. Frederick A. Davis, Madison.

3:45 Clinical Problems in Refraction.
Dr. Avery D. Prangen, Assoc. Prof. Ophthalmology, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minnesota.

4:15 Discussion opened by Dr. Mark E. Nesbit, Madison.

4:25 Problems Involved in the Diagnosis and Treatment of Malignancies of the Nasal Accessory Sinuses.
Dr. Francis L. Lederer, Prof. Laryngology, Rhinology, and Otology, University of Illinois College of Medicine, Chicago, Illinois.

4:55 Discussion opened by Chairman.

5:05 Election of Officers for newly created Section—.
Chairman.
Vice-Chairman.
Secretary–Treasurer.

5. SECTION ON MEDICINE. Presiding: Dr. James A. Evans, La Crosse.

2:15 The Problem of the Ameba Histolytica Carrier.
Dr. Joseph L. Miller, Clin. Prof. Medicine, The School of Medicine of the Division of the Biological Sciences, University of Chicago, Chicago, Illinois.

2:45 Discussion—Dr. Marcos Fernan-Nunez, Milwaukee.

2:55 Basic Points in Roentgen Ray Studies of Lung Anatomy and Pathology.
Dr. John H. Skavlem, Asst. Prof. Medicine, University of Cincinnati, College of Medicine, Cincinnati, Ohio.

3:25 Discussion—Dr. W. S. Middleton, Madison.
Dr. A. A. Pleyte, Milwaukee.

3:35 Allergy Studies.
Dr. William A. Mowry, Madison.

3:55 Discussion—Dr. Howard J. Lee, Oshkosh.
Dr. F. W. Madison, Milwaukee.

4:15 to 6:15 *FIVE ROUND TABLE SYMPOSIUMS—Rathskeller*

1. Allergy—Dr. Theodore L. Squier, Milwaukee.
2. Tuberculosis—Dr. Harold M. Coon, Stevens Point.

3. Gastro - Enterology — The Medical Management of Uncomplicated Cholelithiasis — Dr. Michael W. Skutkin, Milwaukee.
4. Calcium Metabolism— Dr. Elmer L. Sevringhaus, Madison.
5. Cardiac Problems — Dr. Chester M. Kurtz, Madison.

6. SECTION ON RADIOLOGY. Presiding: Dr. H. W. Hefke, Milwaukee, Chairman.

2:15 Bone Case.
Dr. L. V. Littig, Madison.

2:25 Fracture of Carpal Scaphoid.
Dr. F. H. Kuegle, Janesville.

2:35 Case Report.
Dr. F. W. Mackoy, Milwaukee.

2:45 Cancer of Mandible.
Dr. A. M. Dorr, Milwaukee.

2:55 Case Report.
Dr. F. C. Christensen, Racine.

3:05 Aseptic Necrosis of the Hip.
Dr. S. A. Morton, Milwaukee.

3:15 Case Report.
Dr. Theodore Sokow, Kenosha.

3:25 (a) One Diagnostic Case.
(b) One Therapeutic Case.
Dr. E. A. Pohle, Madison.

3:45 Case Report.
Dr. I. E. Bowing, Kenosha.

3:55 Foreign Body in Abdominal Cavity.
Dr. R. L. Troup, Green Bay.

4:05 Bone Syphilis.
Dr. H. W. Hefke, Milwaukee.

4:15 Angiography.
Dr. John D. Camp, Rochester, Minnesota.

6:45 P. M. Annual Dinner (Informal) Ballroom, Hotel Loraine.

Guest Speaker—Dr. Morris Fishbein, Editor, Journal of the American Medical Assn., Chicago.

Dancing.

FRIDAY, SEPTEMBER 11

8:00 A. M. Registration and exhibits open, Memorial Union.

8:00 CHEST SYMPOSIUM. Presiding: Dr. Joseph W. Gale, Madison.

8:30 Carcinoma of the Bronchus and Its Surgical Treatment.
Dr. Nathan A. Womack, St. Louis, Missouri.

The Rathskeller, Memorial Union.

8:55 Discussion—Dr. John L. Yates, Milwaukee.

9:05 Bronchiectasis.
Dr. John Alexander, Prof. Surgery, University of Michigan Medical School, Ann Arbor, Michigan.

9:30 Discussion—Dr. R. D. Thompson, Wisconsin State Sanatorium, Statesan.

9:40 Acute and Chronic Empyema.
Dr. Jerome R. Head, Chicago, Illinois.

10:05 Discussion—Dr. Forrester Raine, Milwaukee.

10:15 *Recess Demonstrations in Scientific Exhibits.*

8:45 SYMPOSIUM ON NEPHRITIS. Presiding: Dr. Louis M. Warfield, Milwaukee.

8:45 Phases of Edema in Nephritis.
Dr. Francis D. Murphy, Milwaukee.

9:05 Nephritis from the Standpoint of the Insurance Companies.
Dr. D. E. W. Wenstrand, Milwaukee; Dr. Roy Benton, Milwaukee.

9:25 The Cyanate Therapy of Hypertension.
Dr. M. Herbert Barker, Chicago, Illinois.

9:55 Discussion opened by Dr. W. D. Coventry, Duluth, Minnesota.

10:15 *Recess—Demonstrations in Scientific Exhibits.*

10:30 General Session, Great Hall, President R. M. Carter, presiding.

10:30 Motion Picture Demonstration and Discussion of Interesting Pediatric Cases.
Dr. H. Kent Tenney, Madison.

10:50 Discussion opened by Dr. King C. Woodward, Rockford, Illinois.

11:00 Removable Internal Fixation After the Reduction of Certain Fractures, by the Use of a Beaded Wire.
Dr. James E. M. Thomson, Lincoln, Nebraska.

11:30 Treatment of Carcinoma of the Rectum in the Inoperable Case by Electrocoagulation.
Dr. James A. Johnson, Assoc. Prof. Surgery, University of Minnesota Medical School, Minneapolis, Minnesota.

12:00 Alumni Luncheons.

1:25 P. M. General Session, Great Hall.

1:25 Installation of Dr. Stephen E. Gavin, Fond du Lac, as President and thereafter presiding.

1:30 Injection Treatment of Hernia.
Dr. Arthur F. Bratrud, Minneapolis, Minnesota.

2:00 Pyuria in Children.
Dr. Meredith F. Campbell, New York City.

2:30 Imperforate Anus.
Dr. Stanley J. Seeger, Milwaukee.

2:40 Discussion by Dr. Eben J. Carey, Milwaukee, and Dr. Gregory Connell, Oshkosh.

3:00 Practical Considerations in the Treatment of Colonic Carcinoma. (Illustrated.)
Dr. C. F. Dixon, Ass't. Prof. Surgery, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minnesota.

4:00 Adjournment.

FOR YOUR ENTERTAINMENT

THE SMOKER

Each year the evening smoker is becoming more popular.

On Wednesday evening, September 9, in the Rathskeller of the Memorial Union, the Society will have another smoker for your entertainment.

It will open with a speaker who will discuss "The Social Aspects of Medicine." Following this address, beer, sandwiches, pretzels and cheese will be served free of charge.

Come to the smoker and meet your friends. Enjoy an evening of good fellowship.

PROGRAM SYNOPSIS

Tuesday, September 8

M.
12:00 Council, Hotel Loraine
P. M.
7:00 House of Delegates, Hotel Loraine

Wednesday, September 9

A. M.
8:00 Registration—Exhibits open, Memorial Union
9:00 Joint General Session with Cancer Institute
10:20 Recess—Demonstrations in Scientific Exhibits.
10:40 General Session
P. M.
1:30 Demonstrations in Scientific Exhibits
2:00 Joint General Session with Cancer Institute
3:20 Recess—Demonstrations in Scientific Exhibits
3:40 General Session
6:45 House of Delegates, Great Hall, Memorial Union
8:30 Medical Economics, Great Hall, Memorial Union
9:00 Smoker, Rathskeller, Memorial Union

Thursday, September 10

A. M.
8:00 House of Delegates, Hotel Loraine
8:30 General Session, Great Hall, Memorial Union
9:55 Recess—Demonstrations in Scientific Exhibits
10:10 General Session
M.
12:00 Twelve Round-Table Luncheons, Hotel Loraine
P. M.
1:45 Recess
2:15 Sections on—
Obstetrics and Gynecology
Radiology
Surgery
Urology
Eye, Ear, Nose, and Throat
Medicine 2:00 to 4:00
Five Round-Table Symposiums, Rathskeller, 4:00 to 6:00
6:45 Annual Dinner, Loraine Hotel.
Informal
Address: Dr. Morris Fishbein, Editor, Journal of American Medical Association, Chicago.
Dancing.

Friday, September 11

A. M.
8:30—10:15 Symposium on Chest
8:45—10:15 Symposium on Nephritis
10:15 Recess—Demonstrations in Scientific Exhibits
10:30 General Session
P. M.
1:25 Installation of President
1:30 General Session
4:00 Adjournment

Members—1936 House of Delegates

County	*Delegate*	*Alternate*
Ashland–Bayfield–Iron	R. O. Grigsby, Ashland	C. W. Lockhart, Mellen
Barron–Washburn–Sawyer–Burnett	A. S. White, Rice Lake	H. H. Schlomovitz, Barron
Brown–Kewaunee–Door	P. R. Minahan, Green Bay	W. W. Kelly, Green Bay
	O. A. Stiennon, Green Bay	W. E. Leaper, Green Bay
Calumet	J. W. Goggins, Chilton	N. J. Knauf, Chilton
Chippewa	W. H. Fortner, Bloomer	A. W. Overgard, Stanley
Clark	H. H. Christofferson, Colby	M. C. Rosekrans, Neillsville
Columbia	H. M. Caldwell, Columbus	W. H. Costello, Randolph
Crawford	C. A. Armstrong, Prairie du Chien	E. T. Ackerman, Gays Mills
Dane	H. E. Marsh, Madison	W. T. Lindsay, Madison
	E. F. Schneiders, Madison	L. V. Sprague, Madison
	L. W. Peterson, Sun Prairie	Louis Fauerbach, Madison
Dodge		
Douglas	H. J. Orchard, Superior	C. W. Giesen, Superior
Eau Claire–Dunn–Pepin	J. C. Baird, Eau Claire	Oscar Knutson, Osseo
Fond du Lac	D. J. Twohig, Fond du Lac	C. W. Leonard, Fond du Lac
Forest	E. G. Ovitz, Laona	G. W. Ison, Crandon
Grant	E. C. Howell, Fennimore	J. E. Donnell, Cuba City
Green	J. F. Mauermann, Monroe	W. G. Bear, Monroe
Green Lake–Waushara–Adams	A. J. Wiesender, Berlin	G. E. Baldwin, Green Lake
Iowa	S. R. Ridley, Mineral Point	H. M. Walker, Dodgeville
Jefferson	H. P. Bowen, Watertown	W. S. Waite, Watertown
Juneau	F. H. Ferguson, Elroy	W. T. O'Brien, Mauston
Kenosha	A. F. Ruffolo, Kenosha	G. F. Adams, Kenosha
La Crosse	N. P. Anderson, La Crosse	Gunnar Gundersen, La Crosse
Lafayette	W. B. Williams, Argyle	Suzanne Orton, Darlington
Langlade	J. C. Wright, Antigo	W. P. Curran, Antigo
Lincoln	R. J. Henderson, Tomahawk	F. C. Lane, Merrill
Manitowoc	R. W. Hammond, Manitowoc	A. P. Zlatnik, Two Rivers
Marathon	S. M. B. Smith, Wausau	E. E. Flemming, Wausau
Marinette–Florence	H. L. Jorgenson, Marinette	T. J. Redelings, Marinette
Milwaukee	Jos. Lettenberger	F. E. Drew
	F. D. Murphy	W. V. Nelson
	J. C. Sargent	R. E. Fitzgerald
	H. W. Powers	H. C. Schumm
	H. J. Gramling	A. R. Langjahr
	G. W. Neilson	Edward Jackson
	Norbert Enzer	W. F. Grotjan
	L. W. Hipke	E. J. Carey
	R. P. Sproule	C. W. Eberbach
	H. E. Webb	S. M. Markson
	J. W. Smith	Irwin Schulz
	W. A. Ryan	D. D. Mehigan
	F. W. Mackoy	B. P. Churchill
Monroe	G. C. Devine, Ontario	S. D. Beebe, Sparta
Oconto	H. F. Ohswaldt, Oconto Falls	J. F. Rose, Lena
Oneida–Vilas	W. S. Bump, Rhinelander	O. R. McMurry, Eagle River
Outagamie	A. E. Rector, Appleton	Albert Leigh, Kaukauna
Pierce–St. Croix	A. E. McMahon, Glenwood City	O. H. Epley, New Richmond
Polk	R. G. Arveson, Frederic	A. N. Nelson, Clear Lake
Portage	E. E. Kidder, Stevens Point	H. P. Benn, Stevens Point
Price–Taylor	J. D. Leahy, Park Falls	L. E. Nystrum, Medford
Racine	H. B. Keland, Racine	T. C. Hemmingsen, Racine
Richland	B. I. Pippin, Richland Center	George Parke, Viola
Rock	P. A. Fox, Beloit*	W. J. Allen, Beloit
Rusk	W. F. O'Connor, Ladysmith	L. M. Lundmark, Ladysmith
Sauk	E. D. Stanton, Reedsburg	Leo A. Hudson, Sauk City
Shawano	A. J. Gates, Tigerton	C. E. Stubenvoll, Shawano
Sheboygan	G. J. Hildebrand, Sheboygan	O. T. Gunther, Sheboygan
Trempealeau–Jackson–Buffalo	J. P. Reinhardt, Fountain City	R. L. MacCornack, Whitehall
Vernon	W. M. Trowbridge, Viroqua	R. S. Hirsch, Viroqua
Walworth	D. H. Jeffers, Lake Geneva	Walter Mauthe, Whitewater
Washington–Ozaukee	J. G. Hoffmann, Hartford	H. M. Lynch, West Bend
Waukesha	H. A. Peters, Oconomowoc	H. T. Barnes, Delafield
Waupaca	A. M. Christofferson, Waupaca	R. K. Irvine, Manawa
Winnebago	R. B. Rogers, Neenah	J. M. Conley, Oshkosh
Wood	F. X. Pomainville, Wisconsin Rapids	K. H. Doege, Marshfield

* Deceased.

Annual Reports of Officers and Committees to 1936 House of Delegates

COUNCIL

While the Council of the Society is legally charged with the responsibility of exercising all functions of the House of Delegates between sessions, so far as possible, the Council endeavors to postpone for the consideration of the House all questions of policy wherein, with safety to the membership, decisions can be postponed. During the depression years and the current year many questions arose which could not be postponed until the meeting of the House. The Council has endeavored to meet every such question in the light, however, of previous policies of the House to the end that its actions might reflect the wishes of the membership.

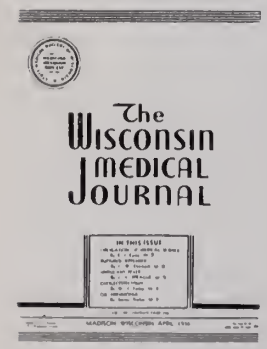
The minutes of the long January meeting are to be found in the February issue of the Journal, and in this issue of the Journal are to be found the extensive minutes for the special meeting held in June. A third meeting of the Council will be held prior to the first session of the House of Delegates. The Council refers members of the House to its published proceedings in this Journal as indicative of the type of work which now comes before its body.

MEMBERSHIP

Effective for 1936, the House of Delegates a year ago, by unanimous vote, ordered that the dues be restored to their former figure of $15. It was accordingly anticipated that our 1935 membership of 2,250 might be reduced by 150 during 1936.

The contrary is true. Membership on July 31 of the current year is 2,113 as compared to 1,995 as of the same date in 1935. It seems apparent that our 1935 membership will be maintained, if not increased.

THE JOURNAL



Throughout the year the Editorial Board, Medical Editor and Managing Editor have endeavored constantly to improve the calibre and attractiveness of our Journal. It is today one of the best read of all State Journals, and, in addition to its scientific worth, it properly carries information secured for the members by their organization,—material of real economic value, frequently not duplicated in like publications.

Due to unprecedented loss of advertising income during the depth of the depression, the Journal for the first time required an annual appropriation from the general fund of $3,000. This has been reduced to $2,700 for the current year and further material reductions are assured. It appears that, with one exception, no other State Journal, maintaining the advertising standards of the American Medical Association, is published at a lower per member cost.

TRAVEL

During the past ten months your Secretary has attended sessions as shown following:

I. County and District Meetings Attended:

- Eleventh District, Superior
- First District, Watertown
- Kenosha
- Grant
- Outagamie
- Milwaukee
- Sauk
- Rock
- Shawano
- Columbia
- Jefferson
- Dodge
- Seventh District, Tomah
- Sheboygan

II. Committee Meetings:

- Crippled Children (7)
- Executive Committee Council (2)
- Coordination of Medical Services (2)
- Medical History (1)
- Council on Scientific Work (3)
- Committee on Scientific Work (2)
- Committee on Economics (2)
- Council (2)
- Cancer (1)
- Committee on Institutional Care (3)
- Committee on Child Health and Maternal Care
- Citizen's Committee on Public Welfare—Administration (2)
- Wisconsin Conference of Social Work, Hartford
- State Interdepartmental Committee on Crippled Children (2)
- Citizen's Committee on Public Welfare: Health and Disability (5)

III. Miscellaneous:

- Auxiliary, Medical Society of Milwaukee County
- Special Study of Plan at Washington, D. C.
- Special Study of Plan at Atlanta, Georgia
- Board of Directors of Milwaukee County (4)
- N. W. Regional Conference
- Congress on Medical Education and Licensure
- Wisconsin Hospital Association (2)
- Marquette Convocation
- Wisconsin Convocation (2)
- State Board of Health
- American Medical Association

SCIENTIFIC WORK

The work of the standing committee on this subject is graphically before you in the program for the 95th Anniversary Meeting. The work of its present chairman, Dr. Gunnar Gundersen of La Crosse, has been painstaking to the end that the

program might provide the needs of the general membership as well as those doing more specialized work.

Culminating efforts of Dr. O'Leary, past president, and the Secretary, the State Board of Health during the present year will expend in the neighborhood of $15,000 to provide postgraduate courses in obstetrics and pediatrics throughout the State. These courses have been given and continued under the Social Security federal grant for effort in the field of maternal and child welfare. Self-supporting courses provided earlier by the Society cost participating physicians from $20 to $30 a course. The present course is provided without charge to the attending physician and several hundred will have completed this course by the late fall.

After three years of study, the Council of the Society commends to this House of Delegates an appropriate amendment to the By-Laws to discharge the formally created Committee on Scientific Work and to create a Council on Scientific Work. The Council will consist of five members serving five-year terms, one of whom will represent the Medical School of Marquette and one, the Medical School of the University of Wisconsin. The Council has been created as a special committee of the Council pending action by this House of Delegates and its present membership includes the deans of both medical schools.

The new Council, if acceptable to the House, will hereafter handle not only the annual meeting programs but will concentrate its best efforts towards providing material for the scientific programs of both district and county societies. The Secretary is now attempting to work out a plan whereby such material may be furnished to all societies regardless of size of location within the State.

GOVERNOR'S COMMITTEE

In an earlier issue of the Journal there has been set forth the general aims of a Citizen's Committee on Public Welfare appointed by Governor La Follette. Possibly the major activities of the Committee are in the field designated as "health and disability." Your Secretary, named to the Committee, is now Acting Chairman of this subcommittee. Late in July Dr. E. Smedal, La Crosse, was appointed to the Committee to succeed Dr. A. Gundersen, resigned. Dr. Smedal has likewise been assigned to the subcommittee on health and disability.

Work in this field has made tremendous demands upon the time, not only of your Secretary, but of the office personnel as well. Because of the great importance of the work of this Committee, arrangements are being made to set forth its work to date at a meeting prior to the smoker Wednesday evening of the Annual Meeting week.

MEDICAL LIBRARY SERVICE

Upon request of the Society and with its cooperation, the Medical School of the University of Wisconsin has maintained, for several years, a mail medical library service. This service is designed to furnish the practicing physician with recent and authentic literature on questions submitted arising out of practice. While the Society turns over to the library approximately $1200 of new books each year in addition to seventy periodicals, the service features periodic literature.

Each year since the establishment of the service has seen its material growth. The cost to the physician is postage and a small mailing charge, not of itself sufficient to support the costs. These are defrayed largely from the Medical School budget.

During the typical week of March 9–17, for instance, 27 separate requests for information were received including such subjects as x-ray treatment of hypertension and diabetes, statistical studies of thyroid cases, social and legal medicine, cortical tumors simulating Cushing's syndrome, osteoporosis, skull fractures, head injuries, and internal derangement and traumatic instability in knee injuries. To fill these typical 27 requests, 164 pieces of literature were furnished. During the year ending June 30 last, 5,253 requests were filled and 14,696 pieces of periodic literature and books were loaned.

This is a most outstanding scientific service to the membership and one the merit and quality of which has made it deservedly popular with physicians throughout the State.

PUBLIC POLICY

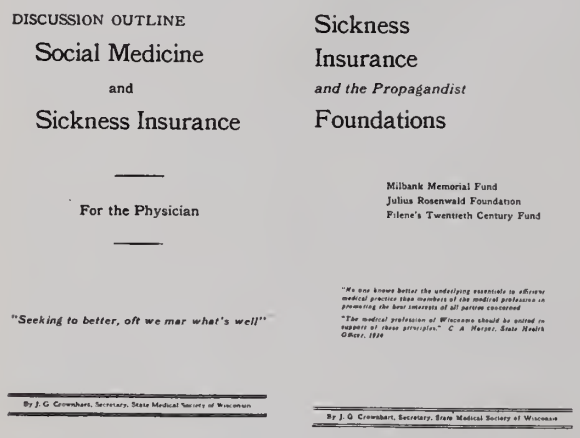
In accordance with custom this Committee, directly in charge of the legislative work of the Society, holds its most important meeting in October following the session of the House of Delegates. At that time it discusses all recommendations made to the Committee and accepted by the House, selecting those measures for actual introduction that seem to be of most pressing public significance and importance. The Committee notes the mandate of the 1935 House of Delegates that in the 1937 session it is to center its first activities upon the passage of an acceptable lien law. The Committee calls attention to the fact that this subject has received favorable consideration in the Wisconsin Hospital Association and that efforts toward passage of the law will be joint.

The Committee reports that it has received recommendations from the Medical Society of Milwaukee County looking toward (1) elimination of questionable advertising, and (2) physical examination of automobile drivers. Both of these suggestions have received approval of the House of Delegates at earlier sessions, and, unless the House expresses itself to the contrary, this subject matter will be discussed by the Committee, fixing its position in the coming legislative program.

The attention of all members is directed to the fact that cultists are again active in the State, looking toward enactment of legislation in the 1937 session to extend their rights and privileges.

As in the past, the efforts of members throughout the State looking toward the acquaintance of their own members of the legislature with the significance and importance of these and like questions will be most essential. The Committee earnestly seeks the cooperation of each member to the end that the coming session may see further advance in public health laws in the State, and in no case, their destruction.

MEDICAL ECONOMICS



During the last year, under the jurisdiction of the Committee on Medical Economics, over 60,000 pamphlets on various phases of the practice of medicine have been mailed to high school students and debate coaches to set forth adequately certain considerations relative to the national debate question for the school year just closed. Literally hundreds of individual letters asking for information were answered out of the central office of the State Society during the same period. The officers feel that this work was of the greatest importance.

Because of the importance of other considerations bearing on this field, they were handled direct by the Council, the actions of which body are published in the Journal. The Committee will hold an early meeting, however, to supplement its plans for future work.

MEDICAL HISTORY

The Committee on Medical History calls attention to the fact that in 1941, five years hence, our Society will celebrate its centennial. This is said only to emphasize the importance of the Committee's efforts looking toward a preservation of historical material while it is still available.

Particular efforts have been made to interest the auxiliary wherever organized, and the Committee wishes to report that excellent results have been obtained. A very considerable number of loans and gifts have been made to the Committee of books, old instruments, and other material of historical value. This will all be placed on exhibit by the State Museum in the State Historical Library.

PREVENTION OF GOITER

Following approval of the suggestions submitted to the Council by the Committee on the Prevention of Goiter, a communication was addressed to the officers of the various county medical societies requesting that they devote a meeting to this subject. The response was very gratifying and nearly all of the societies holding meetings this spring devoted part or all of one meeting to this problem. The members of our Committee made an effort to present the subject at as many of these meetings as possible. In a few instances it was impossible owing to conflicting dates. Among the meetings I was able to attend were those at Milwaukee, Oshkosh, Sheboygan, Eau Claire, Janesville, Fond du Lac, Galesville, Waukesha, Horicon, and Berlin. Dr. George Lynch spoke at the Green Bay meeting, Dr. O'Leary at Superior and Dr. Boudry at Stevens Point. Dr. Francis Murphy addressed several other meetings. Material in the way of slides and literature was supplied for these and other meetings by the Committee. In addition, a six-page introductory program on the subject of goiter together with pertinent facts regarding its prevention was sent to the officers of all county societies. This material was to furnish the basis for program discussions and also to provide material to assist in starting a preventive campaign.

The Committee sought to accomplish two objectives during the past six months.

1. To generally acquaint the profession with the subject of goiter, its sequelae and the importance of its prevention.

2. To coordinate those views on goiter now generally accepted so that the profession in this State might work along similar lines.

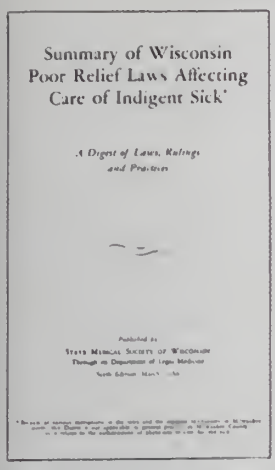
Our effort to accomplish these objectives appear to be successful.

The officers of each society were requested to appoint a committee of three to develop plans for prevention of goiter within that county during the coming year. Also to correlate data that they might obtain with that of our Committee. Twenty-one such committees have been appointed to date.

It seemed best that no general plan of prevention should be advised for the entire State until further studies of the subject have been completed. Preventive plans inaugurated by the State Board of Health and others are already in effect in some counties. We have advised that all children should be given some form of iodine during the school year. Also that pregnant women be given iodine under the direction of their family physician. We believe that this important step has heretofore been generally neglected and that our efforts will result in considerable good. The profession has been very appreciative and responsive. During the coming year we plan to study the effects of iodized salt in the State of Michigan and to formulate a plan to be adopted for Wisconsin.

Arnold S. Jackson, *Chairman.*

LEGAL SERVICE


Summary of Wisconsin Poor Relief Laws Affecting Care of Indigent Sick

A Digest of Laws, Rulings and Practices

Published by
State Medical Society of Wisconsin
Through its Department of Legal Medicine

Throughout the year numerous legal questions arise affecting either the effort of the State Society, the component society or practices of individual members. An appropriation is provided by the Council to care for this specialized service to the membership.

Inquiries of members are answered so long as the subject is one wherein the answer will be of informative value to all members. In this field legal counsel considered such questions as income tax deductibility for loss in exchanged equipment, collection of physician's fees under the Wisconsin General Hospital Law, the operation of numerous collection and finance companies, regulations with reference to narcotic drug acts, and in addition appeared in court in Green Lake County. In this instance the county board refused to pay physicians for local treatment under the Wisconsin General Hospital law on the ground the expense of local hospitalization only was authorized. Obviously such an unwarranted interpretation would have affected adversely the rights of physicians throughout the State. The circuit court decision resultant was favorable to the profession.

To component societies contracts were furnished to comply with the provisions of the new law permitting county societies to enter into agreement for the medical care of the indigent. Aid was also rendered, as in former years, in the matter of following procedure indicated in the handling of expulsion questions and trials.

For the membership as a whole, legal counsel assisted in preparing the summarization of relief laws affecting care of the indigent sick, several thousand copies of which were furnished not only to members but to relief officials throughout the State. This was the sixth edition of this booklet and the demand for it is attested by continuous requests for copies in almost every mail despite the fact that it was issued six months ago.

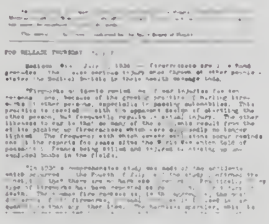
There was again published in the Journal a summarization of income tax laws, both State and Federal, as their provisions have particular reference to professional aspects. Members throughout the State have repeatedly advised that in this publication alone they find a material value which more than covers the amount of their annual dues.

HEALTH EDUCATION

Radio. During the year the Society has inaugurated a new type of radio health presentations for its three fifteen-minute periods each week. In January, through the facilities of state radio station WHA, Madison, it was possible to present radio health dramas. These radio dramas are similar in character to the health dramatizations presented by the American Medical Association. All broadcasts, lasting from five to twelve minutes, are recorded on permanent records that may be replayed several times. The Society is negotiating at this time with other radio stations in the State for time during which these radio dramatizations may be presented over local radio stations. The Society now has a library of over seventy-five records that are available for distribution to local radio stations.

Over 150 health presentations have been written and presented under the supervision of the Society.

It is the firm conviction of the Society, and the radio station, that this type of presentation is a marked improvement over the monolog type of health information.

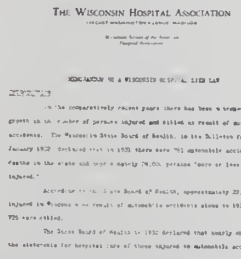

FOR RELEASE THURSDAY

News Releases. The Society is continuing its policy of preparing for weekly and daily newspapers, a weekly article on health subjects. During the last year we have noticed an increase in the number of papers using this service.

The value of this service in the advance of public health is inestimable. Your Secretary feels that this distinctive service to the public should be continued.

Hygeia. Following a policy established some years ago, the Society at Christmas time gave subscriptions to Hygeia to members of the Assembly and Senate, educators and Justices of the Supreme Court. This educational effort was well received as was evidenced by the numerous letters by the recipients acknowledging their appreciation of this gift.

WISCONSIN HOSPITAL ASSOCIATION


The Wisconsin Hospital Association

The Secretary reports that for the sixth year he has continued as secretary-treasurer of the Wisconsin Hospital Association. His honorarium of $150 a year is turned over to a general fund of the State Society.

Through his services to this Association arrangements have been made to join the interests of both groups in the passage of an acceptable physician-hospital lien law. A representative of the Wisconsin Hospital Association is now in the State to secure the active cooperation of all hospitals to the end that this legislation, in acceptable form, may receive the approval of the 1937 session.

The Secretary calls attention to the fact that the alliance between the two organizations has been mutually profitable and is one which it is hoped may be continued in the years to come.

COMMITTEE ON CANCER

Cancer Institute

September 7th to 9th

1936

Conducted by
MEDICAL SCHOOL
UNIVERSITY OF WISCONSIN
MADISON

The important function of this committee is to accomplish those things which will bring about the early recognition of cancer and its proper treatment. This can be accomplished only if the patient is taught to consult a physician early and if the physician recognizes the dangers in comparatively innocent-looking lesions.

To find new ways to emphasize these two fundamental facts occupies the time and constitutes the activity of the committee each year. The public has been reached during the last year by radio, public addresses to individual groups, and newspaper articles. During the last year, in connection with the Society's general broadcasting program, a number of records, depicting in dramatic form the importance of the recognition of cancer and precancerous lesions, were made. These records are to be used by radio stations throughout the State and thereby create a larger audience than individual broadcasts from Madison. Probably next to the radio programs the use of film strip projectors with film strips and manuscripts have been the most successful way to reach large numbers of people. During the year we purchased two large projectors. We now have three of the large type projectors and two of the small. The large projector is suitable for audiences of three hundred people. The small one is for audiences of fifty to one hundred.

The Committee has felt that no matter how successful we may be in arousing the interest of the public in cancer, if physicians are pessimistic and fail to recognize that some of the failure to diagnose cancer early is due to lack of alertness on the part of the family physician, all of our effort will come to nothing. Cancer is *not controlled or prevented* by committee action. Cancer is *controlled and prevented* by alertness on the part of physicians who first see these patients. We are all apt to become self-satisfied and complacent. The physician, particularly, often resents being told that he is not doing his best, but facts are facts and it is much better for us to recognize our own deficiencies and correct them before someone else finds them out and attempts to do the correcting for us.

During the last year the Committee has been interested in a study which reveals some facts bearing on this point. This study covered 583 cases where death was attributable to cancer. Special attention was paid in the histories to those factors which contribute largely to the failure to control cancer:

1. Tardiness in seeking advice from a physician.
2. Tardiness in making a diagnosis.
3. Inadequate early treatment.

Of the 583 cases, 404, or roughly, seven out of each ten showed one, two, or all three of these factors. Tardiness involved the patient in 160 cases and the physician in 266 cases. These figures show in a striking way the possibility of greatly reducing cancer mortality by improved attention on the part of the physician to the early recognition of this disease. It is true, of course, that the very nature of the disease sometimes makes an early diagnosis impossible. However, when allowance is made for this, the figures show that the profession as well as the public needs jogging up on the early recognition of cancer. Another very significant figure for our purpose deals with the recognition of rectal cancer. Of 117 cases investigated, only 63 were diagnosed before they reached the surgeon, although 103 had definitely palpable tumors in the rectum.

There is still another item which makes the Committee feel that physicians need to be reminded often about the importance of the early diagnosis and proper treatment of cancer and also creates the impression among the committee members that the members of the Society are depending too much upon committee action to solve the problem and too little upon personal initiative. The item is: Cancer reports to the Board of Health. Last year, 1935, only 1,285 cases of cancer were reported. When the death records show 3,810 deaths, it is obvious that not more than one-third of the cases were reported. It should excuse no physician that he does not have cards. The Cancer Committee of his Society has publicized the reporting of cancer through the Journal and members of the Committee to county medical societies.

During the last year the various Committee members have addressed several county societies and have requested that the county societies devote ten minutes of each meeting to cancer.

At a meeting in February the Committee passed the following resolutions:

1. That a member of the County Medical Society's Public Relations Committee be given membership on its Cancer Committee.

2. That lay associates be added to the State Society's Cancer Committee, and that these associates be representatives of State organizations.

3. That each member of the State Society's Cancer Committee associate with himself interested laymen in his district.

After the morning session of the Committee meeting in February we had luncheon with several invited guests and in the afternoon heard Dr. Rector and Mrs. Illig tell of the American Association's plan to organize a Women's Field Army in Wiscon-

sin to carry out public education on cancer control and prevention. In addition to the members the following were present at this meeting:

Mrs. Blackstone, Chairman of the Wisconsin Federation of Women's Clubs.

Mrs. Testwuide, Chairman of the Health Committee of the Wisconsin Federation of Women's Clubs.

Mrs. Hastings, Parent Teachers' Association.

Mrs. C. A. Harper, Wisconsin Auxiliary of the State Medical Society.

Dr. Frank L. Rector, American Society for the Control of Cancer.

Mrs. Illig, American Society for the Control of Cancer.

Mr. J. G. Crownhart.

Mr. G. B. Larson.

Mrs. Blackstone said that the National Federation of Women's Clubs have taken cancer for their five-year health program. She asked that the State Medical Society supply speakers to clubs throughout the State. There are something over three hundred local branches of the State Federation of Women's Clubs. The Committee was most pleased to cooperate with the Women's Clubs in this project but thought that a well-mapped-out campaign would be necessary before we actually started on any state-wide speaking campaign by a large group of speakers. It was deemed advisable to supply all speakers with the same manuscripts and other material for the sake of uniformity of information. If this program is to be successful, the committee will need a corps of speakers.

Lastly, the Chairman has been engaged in the preparation of a program for a Cancer Institute which will be held at the University the 7th, 8th and 9th of September. The last day will be a joint meeting with the State Society.

W. D. Stovall, *Chairman.*

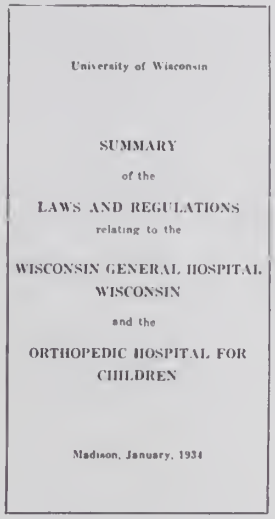
ANNUAL DINNER

You and your wife will want to attend the Annual Dinner of the Society. (Informal)

This year Dr. Morris Fishbein, a speaker "par excellence" will address the members and their wives on Thursday evening. The dinner will be held in the Loraine Hotel at 6:45 p.m.

Tickets for the Annual Dinner may be secured at the registration booth, Memorial Union.

COORDINATION OF MEDICAL SERVICES


University of Wisconsin

SUMMARY
of the
LAWS AND REGULATIONS
relating to the
WISCONSIN GENERAL HOSPITAL
WISCONSIN
and the
ORTHOPEDIC HOSPITAL FOR
CHILDREN

Madison, January, 1934

Three years ago your House created a special committee on this subject to correlate the work of the Wisconsin General Hospital with the needs and responsibilities of the active practitioners of the State. The Committee has functioned continuously with two to four meetings a year since its inception. Meetings are held jointly with the Executive Committee of the Hospital and discussions are full, free and frank.

Constructive suggestions have been welcomed and the Committee thus provides a channel through which any member may have his views expressed in the mutual interests of the public, the medical school, the hospital and the profession.

HOUSE OF DELEGATES

The Secretary has to report several orders of business which are to come before this session of the House of Delegates. Briefly these are as follows:

(1) The Council refers to the House without recommendation a request of the president of the Milwaukee Roentgen Ray Society that the position of the House of Delegates on the subject of the practice of roentgenology and pathology be made known to all hospitals in the State by forwarding a copy of the resolution adopted by the 1935 House of Delegates on this subject.

(2) The Secretary reports that upon this recommendation the Columbia County Medical Society requests permission to reorganize as the Columbia-Marquette-Adams County Medical Society. At present Marquette County is not affiliated in any society; physicians in Marquette County all belong to the Columbia County Medical Society. Adams County is affiliated as a county with the Green Lake-Waushara-Adams County Medical Society. The three physicians in Adams County belong, however, to the Columbia County Medical Society. In event that the petition of the Columbia County Medical Society is granted, this society would be known as the Columbia-Marquette-Adams County Medical Society, and the Green Lake-Waushara-Adams County Medical Society would henceforth be known as the Green Lake-Waushara County Medical Society.

(3) A year ago the State Board of Medical Examiners requested permission to bring before the House of Delegates a legislative change so that the investigator assigned to the duty of prosecuting those who violate acts governing who may treat the sick shall be transferred from the jurisdiction of the State Board of Health to the State Board of Medical Examiners. Subsequent representatives of the Board asked that this discussion be deferred to the 1936 House of Delegates; the subject is accordingly on the addendum for this meeting.

(4) Several amendments to the constitution and by-laws have been recommended and have been published previously in the Journal.

MEDICAL DEFENSE

AUTHORIZATION OF PHYSICAL EXAMINATIONS, TREATMENT, OPERATIONS AND AUTOPSIES

By
WILLIAM C. WOODWARD, M.D., LL.M.
Director, Bureau of Legal Medicine and Legislation, American Medical Association

CHICAGO

For the first year since 1929 the number of medical defense cases showed a marked decline. The Committee's work was extensive, however, through completion of cases pending at the beginning of the year.

In the field of prevention of malpractice suits, the Committee purchased from the American Medical Association a special article on "Authorization of Physical Examinations, Treatment, Operations and Autopsies." A copy of this pamphlet was mailed to each member. This pamphlet was prepared by Dr. W. C. Woodward, director of the Bureau of Legal Medicine and Legislation, and contained most valuable information which, the Committee felt, should be in the hands of every member.

Rules for Medical Defense
By THE COMMITTEE ON MEDICAL DEFENSE
(Approved by the House of Delegates 1929)

UNDER section 4 of Chapter VII of the by-laws of the State Medical Society of Wisconsin the Committee on Medical Defense is empowered to prepare plans and methods rules for the defense of members of the Society against whom suits for alleged malpractice have been brought. It may act in the defense of any member and for alleged malpractice of the member was in good standing and had complied with the

If in order to secure the benefits of medical defense a Member must be in good standing on the date suit is filed or the date on the form on which a complaint, and must have been in good standing at the time during which the occurrence on which the action were involved. "Good standing" shall be construed to mean that the Member is not only in good standing in the Society and Public Society, but that he must not be in arrears in the payment of his dues for the current year of service. (See Chapter VIII) the Committee on the Society, which shall be the sole judge of the

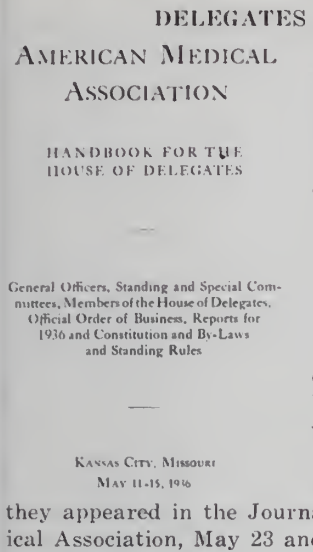
The Committee wishes to emphasize the rule which requires that members entitled to and desiring medical defense must make prompt report to the Society as soon as they have knowledge of a threatened malpractice suit. The Committee feels that in justice to its activities this requirement must be complied with fully in the future.

COMMITTEE ON NECROLOGY

The Council, as the Committee on Necrology, has the sad duty of reporting the deaths of the following physicians since the last Annual Meeting (members of the Society are indicated by boldface type):

Birnbaum, Frank A. ---------- Marathon
Booher, John S. ---------- Reedsburg
Bray, Wallace ---------- Union Grove
Brehm, Theodore G. ---------- Racine
Burns, J. W. ---------- Appleton
Canan, Mack C. ---------- Madison
Charles, C. H. ---------- Milwaukee
Cooney, Edward W. ---------- Appleton
Dana, A. C. ---------- Fond du Lac
Darby, Henry C. ---------- Wilmot
Dohearty, F. P. ---------- Appleton
Edden, R. W. ---------- Janesville
Egeland, Gustaf R. ---------- Sturgeon Bay
Elliott, Roderic S. ---------- Waupaca
Fleury, Frank D. ---------- Omro
Foley, Victor G. ---------- Milwaukee
Fortier, C. A. H. ---------- Milwaukee
Fox, Paul A. ---------- Beloit
Fox, Philip R. ---------- Madison
Gallogly, M. J. ---------- Milwaukee
Gleason, Charles M. ---------- Manitowoc
Griswold, George W. ---------- Alma Center
Gundersen, C. A. S. ---------- Madison
Hall, William A. ---------- Prairie du Chien
Hamilton, D. B. ---------- Dodgeville
Hayes, E. S. ---------- Eau Claire
Hayman, L. H. ---------- Pasadena, Cal.
Heising, A. F. ---------- Menomonie
Hess, John W. ---------- Adell
Hewitt, Milo B. ---------- Hartland
Hull, Edward S. ---------- Milton Junction
Jamieson, George H. ---------- Racine
Jardine, E. W. ---------- Alma
Kitto, Robert A. ---------- Racine
Linger, Earl A. ---------- Oconto
MacLachlan, W. G. ---------- McFarland
McNamara, F. E. ---------- Milwaukee
McNamara, J. H. ---------- Gillett
Martin, George ---------- Baldwin
Meade, Frank S. ---------- Madison
Meers, E. S. ---------- Kenosha
Melster, William H. ---------- Milwaukee
Nixon, R T. A. ---------- Brookfield
Olson, Ever A. ---------- Osseo
Pearce, W. J. ---------- Dodgeville
Pennoyer, N. A. ---------- Kenosha
Phillips, Thomas C. ---------- Milwaukee
Podlasky, H. B. ---------- Milwaukee
Pritchard, J. F. ---------- Manitowoc
Quinn, Joseph F. ---------- Milwaukee
Riopelle, W. G. ---------- Beaver Dam
Riordan, John F. ---------- Kenosha
Rosenheimer, M. H. ---------- Milwaukee
Saunders, George ---------- Superior
Schiller, Leopold ---------- Milwaukee
Schreiber, E. L. ---------- Milwaukee
Schnetz, Thomas N. ---------- Milwaukee
Stuessy, Milton F. ---------- Blanchardville
Sullivan, J. D. ---------- Milwaukee
Swandale, George T. ---------- Kenosha
Sykes, H. D. ---------- Milwaukee
Szlapka, Thaddeus L. ---------- Milwaukee
Thorndike, William ---------- Milwaukee
Tupper, B. L. ---------- Glidden
Wahl, Henry S. ---------- Wausau
Wenker, Raymond J. ---------- Milwaukee
Zwaska, A. B. ---------- Beloit

DELEGATES TO A.M.A.


AMERICAN MEDICAL ASSOCIATION

HANDBOOK FOR THE HOUSE OF DELEGATES

General Officers, Standing and Special Committees, Members of the House of Delegates, Official Order of Business, Reports for 1936 and Constitution and By-Laws and Standing Rules

KANSAS CITY, MISSOURI
MAY 11-15, 1936

This report of your Delegates is to augment "The Report on Important Actions" which has been published in the June Wisconsin Medical Journal, with the view of emphasizing some of the actions, and giving some of the details not included in that report.

It is readily seen that comparatively little can be incorporated, and therefore I wish to call your attention to the published minutes as they appeared in the Journal of the American Medical Association, May 23 and May 30, 1936, in which are incorporated the final actions of the House of Delegates.

The study of this in itself is not complete without your review of the Reports of Officers, Trustees, Judicial Council, Council on Medical Education and Hospitals, and Council on Scientific Assembly, which were printed in the Journal of the American Medical Association of April 4, 1936.

I would emphasize the correlation of these reports, which contain invaluable suggestions and represent an entire year's thought and work, with the resultant consideration given at the Annual Meeting.

There were three meetings of the House of Delegates of the American Medical Association from Monday morning including Thursday afternoon. An executive session was held during one of the meetings. Participating actively were 168 delegates. The Speaker of the House emphasized the responsibilities that rested on the shoulders of the members of the House, and the necessity of careful consideration of all matters referred for action, and urged that courageous and independent thought should be given "toward whatever is best for American medicine and for the American people."

The Reference Committees appointed functioned extremely actively and continuously between the sessions; open meetings were held, and they were largely attended. Detailed discussion and consideration was given every referred action before the report was submitted for final action.

The Report of the Judicial Council carries recommendations that portions of said report should be brought to the notice of component societies—the reemphasizing of the importance of following established procedures in trials.

"Repeatedly the Judicial Council has called attention to the necessity of closely following proper procedure in the conduct of trials based on charges against members of component and constituent organizations and of the necessity of coordinating the governing by-laws of the state association and its component societies. Apparently the many warnings have not reached the ears of the officers and controlling boards of many state and county societies responsible for action. An example of this disregard for legal principles and constitutional procedure involved a case of such prominence that the decision of the Judicial Council was published in full in a recent issue of THE JOURNAL. It must be remembered that the Judicial Council is in no position to judge of the facts involved in any local trial; that it has no knowledge of the facts developed at the trial except a written transcript of the trial, which almost invariably is so incomplete and confused as to inspire serious question as to its value, and that it has no opportunity to review the results of cross-examination and therefore it is very properly barred by the constitution from consideration of the facts and testimony as to facts except as related to law and procedure under which a given trial is conducted. It must also be remembered that orderly procedure and common legal principles are the right of and a protection to innocent and guilty alike. The Judicial Council refrains from taking advantage of technicalities either for or against accused but seeks to judge fairly on the principles underlying them. The Judicial Council recommends that the delegates from state associations bring this portion of its report to the serious attention of the responsible administering officers and boards of the societies they represent."

Invasion by hospitals of the field of practice of medicine was condemned as a violation of the fundamental rights of physicians and demanded militant opposition to the end that such activities shall cease.

The Annual Conference of Secretaries of constituent state medical associations was shown by the Secretary, Dr. Olin West, in his report to be increasingly valuable. The attendance has been advancing and has brought officers of the state medical associations as well as secretaries and editors. Its accomplishments in constructive work is to be complimented. The question of membership jurisdiction was stressed; he urged, "That the jurisdiction of component societies and constituent associations with respect to membership should be clearly defined and definitely maintained." He advised that state associations enter into reciprocal relations, whereby no dual membership should exist. This suggestion was adopted and recommended for earnest consideration of the component state societies.

Resolution requesting that state association be notified when hospital is threatened with removal from accredited list adopted. "Resolved, by the House of Delegates of the American Medical Association, that the Council on Medical Education and Hospitals, in all actions concerning the rating of hospitals having to do with the appointment of interns and residents, shall, when a hospital is threatened with removal from the accredited list, permit such hospital to seek the advice and assistance of the authorities of the State Medical Society."

The following amendments to the By-Laws were made.

Amend Chapter V, Section 1, fourth sentence, to read "With the approval of the Board of Trustees he is authorized to appoint committees, (a) requested by the Councils and (b) for emergencies not otherwise provided for."

Amend Chapter IX, Section 1, second power invested in the Judicial Council, to read "(2) all controversies arising under this Constitution and By-Laws and under the Principles of Medical Ethics to which the American Medical Association is a party."

The first paragraph of Section 1, Chapter IX, will then read: THE JUDICIAL COUNCIL.—The judicial power of the Association shall be vested in the Judicial Council, whose decision shall be final. This power shall extend to and include (1) all questions involving Fellowship in the Scientific Assembly or the obligations, rights and privileges of Fellowship; (2) all controversies arising under this Constitution and By-Laws and under the Principles of Medical Ethics to which the American Medical Association is a party; and (3) controversies (a) between two or more recognized constituent associations, (b) between a constituent association and a component society or societies of another constituent association or associations or a member or members of another constituent association or other constituent associations, and (c) between members of different constituent associations. In all these cases the Judicial Council shall have original jurisdiction.

Add the following paragraph to Chapter IX, Section 1: "The Judicial Council shall have authority in its discretion from time to time to request the President to appoint investigating juries to which it may refer complaints or evidence of unethical conduct which in its judgment are of greater than local concern. Such investigating juries, if probable cause for action be shown, shall report with formal charges to the President who, under Chapter V, Section 1, of the By-Laws, shall appoint a prosecutor who, in the name and on the behalf of the American Medical Association, shall prosecute the charges against the accused before the Judicial Council. The Council shall have the power to acquit, admonish, suspend, or expel the accused."

The following amendment to Chapter XI, Section 1, first sentence: "Membership in this Association shall continue only so long as the individual is a member of a component society of the constituent association through which he holds membership and who is not now serving, or within twelve months has not served, a sentence for felony."

"A Fellow shall present no more than one paper at any scientific assembly nor shall any Fellow open the discussion on more than one paper at any scientific assembly."

J. Gurney Taylor, *For the Delegates.*

PRELIMINARY REPORT, COMMITTEE ON INSTITUTIONAL CARE

The appointment of this Committee was no doubt based largely on the following remarks of Dr. G. E. Seaman, superintendent of the Winnebago State Hospital:

"I am sure the State Medical Society can do much to promote the efficiency of the institutions and welfare of patients both in state and county hospitals . . . I use this term because these institutions should be hospitals in fact since the objective of both the state and county institutions is the care of the mentally sick, their cure when possible, their rehabilitation, and restoration to usefulness.

"The county asylum system has proven itself . . . Originally these institutions were looked upon as custodial institutions and came to be known as asylums—for chronically insane. The time is long since past when this designation should be dropped. Experience has shown that many cases transferred from state to county institutions make adjustments.

"Care of the mentally ill whether in state, county, or private institutions is primarily a medical question . . .

"The State Board of Control and management of both state and county institutions, I am sure, will welcome any interest which the organized profession manifests in this direction . . ."

Members of this Committee have in the past few months visited the Mendota and Winnebago State Hospitals, and Northern Colony and Training School, and approximately one-half of the thirty-six county "asylums" as well as the Douglas County Hospital for tuberculous insane. These visits are still in progress. The physicians in charge and the superintendents have all been most courteous and cooperative, all anxious for any support which the State Medical Society, as a body can give them in the carrying forward of their work.

It is well for the organized profession of the State to realize (1) That of approximately 11,000 insane persons in this State, or about 375 per 100,000 of the population at large, as compared to 195 per 100,000 in 1890, of which 8,600 are considered as chronically insane and housed in one of the county institutions; (2) That the total cost of maintaining this population of 11,000 annually is approximately $856,040 for all of the following five state institutions—Mendota, Winnebago and Central State Hospitals and the Northern and Southern Colonies for the feeble-minded, $2,227,839 for the 36 county institutions, a total of $3,083,879; the property value represented by these institutions is about $9,120,000 for the state hospitals and Milwaukee County, and about $9,000,000 were for the other county institutions or aproximately $18,976,000. (3) That the insane hospital population is almost exactly that of the insane hospital bed capacity; that whereas in 1890 in the state institutions it was possible to offer an insane person 20.9 months of hospital care, in 1935, 10.2 months, and at present rates of increase by 1950 it will be possible to offer only 8.4 months in state-conducted institutions, unless additional bed capacity is provided.

The above facts will suggest the enormity of this problem, the need for prophylactic measures under the general title of mental hygiene, and more immediately the necessity of doing everything possible

to bring all of these institutions into a state of maximal cooperation and efficiency in order to return as many as possible of these people to a useful place in society, to improve their usefulness and comfort while in the institutions, and by efficient case work to prevent the portion of the load which should properly be borne by responsible relatives being foisted upon the state and counties.

At the present time it is the judgment of this Committee that the following suggestions, properly executed, would at relatively small cost greatly aid in acquiring these objectives.

1. Proper expansion of the staff, bed capacities and treatment facilities of the two state hospitals—Mendota and Winnebago, at an early date; this applies also to laboratory facilities and technical help. This is necessary in order to prevent the too early transfer of cases to county asylums and to give more adequate opportunity for the return of certain cases from the county to the state institutions for further treatment.

2. The county institutions should be made more and more hospitals in fact, which purpose may be furthered by such means as the following:

(a) A greater degree of mutual understanding and a greater psychiatric interest on the part of the physicians in charge of the several county institutions. This might be furthered by sectional meetings between them, by a round-table conference in connection with the annual meeting of the State Medical Society, by supplying the institutional library with current literature on psychiatry, neurology, and mental hygiene.

(b) Building up such a respect for the physician as to make him a positive force in the life of the institution rather than, as in too many cases, one to be called only in emergencies in which systems other than the nervous system and from whom little psychiatric knowledge is demanded or expected.

(c) Coordinate the work of the institutions further by establishment of a Psychiatric Field Service in this Section which has the care of nearly two-thirds of the State's mentally disturbed cases.

(d) Designate the institutions as "Hospitals" or "Hospital Homes" rather than as "Asylums."

(e) Pay the doctor a salary adequate to promote his interest in giving the institutions the time which their capacity and population demand.

(f) Keep adequate individual case records so that the course of a given patient may be more readily followed from the standpoint of parole, indications for further treatment, social follow-up of ability of responsible relatives to give care to milder cases and the like.

(g) Furnish at each institution an adequate examining or small operating room with sufficient adjacent laboratory facilities as to make the work of the attending physician efficient and that of the Field Service possible.

(h) Supply a properly trained registered nurse to each institution and so order her duties in contradistinction to those of the matron and superintendent that there shall be no just cause for friction between them.

A. W. Bryan, *Chairman.*

ADVISORY COMMITTEE ON CRIPPLED CHILDREN

At the suggestion of the director of the Crippled Children's Division of the Department of Public Instruction, the Council appointed an Advisory Committee to the Crippled Children's Division. This Committee was appointed in September, 1935. The members appointed were:

Dr. J. W. Powers, Milwaukee; Dr. H. Kent Tenney, Madison; Dr. Chester M. Kurtz, Madison; Dr. Alexander Nadeau, Marinette.

The Crippled Children's Division anticipated the release of Social Security funds to be used in enlarging their program. This Committee was appointed to advise the Crippled Children's Division on matters pertaining to the health in the orthopedic schools and the conduct of crippled children clinics.

This Committee has been most active during the past year. The members have given freely of their time and advice to assist the director in developing a medical program for the Crippled Children's Division of the Department of Public Instruction.

Annual Orthopedic Clinics. On March 17 the Crippled Children's Division of the Department of Public Instruction received official notice that Wisconsin's plan for extending service to crippled children under the Social Security Act had been approved. Funds were made available to continue the present orthopedic clinics which have been held in Eau Claire, La Crosse, Sheboygan and Kenosha. Through the funds provided by the Social Security Act, five new orthopedic clinics were approved for the cities of Superior, Wausau, Green Bay, Janesville and Racine.

Orthopedic Schools. Funds were augmented through the Social Security Act to continue the orthopedic schools in Eau Claire, La Crosse, Madison, Appleton, Sheboygan, Milwaukee, West Allis and Kenosha. New orthopedic schools were proposed for Superior, Wausau, Green Bay, Oshkosh, Racine and Janesville.

Committee Recommendations. The Special Committee appointed by the Council to advise the Crippled Children's Division made the following recommendations of its Director, Mrs. Marguerite Lison Ingram, relative to the methods of providing professional care to children in orthopedic schools: (1) Where the parents were found to be indigent, previous arrangmeents should be made by the munici-

pality responsible for the care of the child. (2) The county medical society should indicate to the orthopedic school, members of the Society "who are willing and capable" to care for the health needs of children in the orthopedic schools. (3) When Social Security funds became available, the professional care in orthopedic schools should be paid direct from federal funds. (4) All children applying for admittance to orthopedic schools should be given a general physical examination by the family physician. (5) The use of ultra-violet lamps and other physiotherapy equipment should be prescribed only to children in the orthopedic schools. (6) A local advisory committee from the county medical society should be appointed to (a) Consult with the orthopedic school on general medical policies. (b) The committee should report at frequent intervals to the county medical society. (c) Members of this committee should be chosen by the county medical society from among those physicians "willing and capable of caring for the crippled children."

Further recommendations were made to the Crippled Children's Division regarding the age of individuals cared for in the orthopedic schools, the conduct of field work, services available in orthopedic clinics, and the amount of remuneration for orthopedic surgeons participating in crippled children work.

The Committee feels that a great advance has been made by the mutual understanding between the Crippled Children's Division and members of the State Medical Society.

SECRETARY'S ACKNOWLEDGMENT

The secretary is keenly conscious of the fact that the material advances of the Society during the year past could not have been made without the very cordial cooperation of the entire membership and officers, received on every occasion.

Attention is also called to the fact that many large projects of the Society calling for a tremendous amount of work by office personnel were concluded successfully without enlarging upon the personnel itself. He takes pride in commending to the House the efforts of all who assist in the central office.

Respectfully submitted,
J. G. CROWNHART, *Secretary.*

Minutes of the Council, University Club, Milwaukee, June 27, 1936

1. Call to Order

The Council was called to order at 9:15 a. m. by Chairman Arthur W. Rogers, of Oconomowoc.

2. Roll Call

A quorum present consisting of Councilors Rogers, Pope, Cunningham, Heidner, Gavin, Jegi, Smith, Butler, Johnson, Blumenthal, and Lambert; President Carter; Treasurer Sleyster; Secretary Crownhart; Assistant Secretary Larson; Miss Lucia Stolp (assistant); Dr. James C. Sargent, vice-speaker of the House of Delegates, and Theodore Wiprud, executive secretary of the Medical Society of Milwaukee County. Dr. J. Gurney Taylor, delegate to the American Medical Association came in during the afternoon session.

3. Appeal From Expulsion Proceedings of the Medical Society of Milwaukee County

An appeal by Doctors A. L. Curtin, H. E. Dallwig, J. E. Rueth, G. A. Sullivan, and H. F. Wolters, represented by Mr. Gerald P. Hayes, attorney-at-law.

Before opening the appeal procedure a discussion was had with respect to methods for hearing the appeal. It was moved by Smith-Jegi that the following procedure be adopted:

(A) Only members of the Council, officers and employees of the State Medical Society, appellants and their attorneys, and officers of the Medical Society of Milwaukee County shall be admitted to the proceedings.

(B) Each appellant may be heard in his own behalf and by legal counsel.

(C) Each appellant may file written brief if he so desires.

(D) The appeal being upon the record (copies of the record will be furnished by the secretary to each member of the Council), no new evidence will be received and no transcript of the hearing will be kept.

After discussion the procedure as outlined was adopted unanimously. The Council recessed informally for the purpose of studying a brief prepared by the attorney for the appellants while waiting for the hour of appeal. The Council was called to order at ten o'clock by the Chairman and Mr. Gerald P. Hayes appeared as attorney for the appellants. The Secretary made the following statement for the record:

"Mr. Chairman: I have here the original transcript of testimony in the several hearings before the Medical Society of Milwaukee County in the matter of expulsion proceedings affecting Dr. A. L. Curtin, Dr. H. C. Dallwig, Dr. J. E. Rueth, Dr. G. A. Sullivan, and Dr. H. F. Wolters. I have also the original exhibits in these cases. I have the following letter which I will read at this time:

"'We are informed that the Council of The State Medical Society of Wisconsin will meet in Milwaukee on Saturday morning, June 27, 1936, to hear an appeal on the part of Drs. A. L. Curtin, H. C. Dallwig, J. E. Rueth, G. A. Sullivan, and H. F. Wolters, recently expelled from The Medical Society of Milwaukee County.

"'We are turning over all of the material,—records, exhibits, transcripts, etc.,—in connection with the recent hearing of charges against these physicians for the consideration of the Council. This Society is not appearing before the Council but is submitting the accompanying record which speaks for itself.

Cordially yours,

THEODORE WIPRUD,
Executive Secretary,
The Medical Society of Milwaukee County.'

"To the end that the Council might give due consideration to the appeal of the physicians involved from decisions which resulted in their expulsion, I have caused to have made a true copy of the transcript of testimony and such exhibits as are not already in the possession of the members of the Council. These copies have been made only in sufficient number so that each member of the Council may have one. These copies have already been distributed to you.

"After closing of the office on Thursday evening last (June 25), there was delivered to the assistant secretary eighteen copies of a written brief prepared by Mr. Gerald P. Hayes, attorney for the appellants. These also have been distributed to members of the Council.

"Because of the fact that the first portion of this brief on pages 8, 9, 10, 11, and part of 12 contains certain statements with reference to the employment of legal counsel and the relationship of the Council of the Society which are factually untrue, the secretary desires to make at this time this further statement.

1. The Secretary occupies a dual position as officer of the Society having been elected in 1923 and annually thereafter as (1) secretary of the Society, and (2) secretary of the Council. These duties as secretary of the Council are confined exclusively to advising members of the Council of their meetings, preparing orders of business therefor, and in keeping minutes of such meetings. These duties are to be distinguished sharply from my general duties as secretary of the State Society, for the discharge of which I consider myself primarily responsible to the House of Delegates which by custom and tradition determines the broad policies of the Society. The truth of this statement is supported by the fact that the principal report of the secretary is made not to the Council but to the House of Delegates at its annual session.

"Neither the House of Delegates nor the Council of the Society has at any time employed permanent legal counsel with the sole exception of approving employment of counsel by the Committee on Medical Defense, the duties of which counsel relate solely to malpractice actions. At the present time such legal counsel is Mr. Ralph M. Hoyt of Milwaukee. It might further be stated that Mr. Fred M. Wylie has never been employed in such capacity.

"Within the budgetary limits established by the Council, the Secretary has, from time to time, directly contracted with several attorneys to perform certain legal work for the Society. No retainer has ever been paid and no person has been employed over any period of time with the exception, on various occasions, of employing an attorney to act as legislative counsel throughout the term of a legislative session.

"In the annual report for the House of Delegates, for many years, the secretary has stressed the necessity of employing legal counsel in view of legal questions which presented themselves to the State Society or the component societies properly referable to the State Society. In the report of the Secretary to the House of Delegates in August, 1934, for instance, in speaking of legal service, the Secretary specifically made mention of the fact that it included services for component societies in expelling or suspending members.

"Under the broad powers granted the secretary of the Medical Society, the Secretary has employed legal counsel on large numbers of occasions during the course of any one year, and so far as the name of the legal counsel employed, the purposes of his employment, or the amount he was to receive is concerned, the secretary has not considered it necessary or required that he make known the details of such usual and every-day office routine to the Council or the House. The only other officer of the Society who might be said to have any knowledge of such details is the treasurer, a non-voting member of the Council, through whose office all bills exceeding $10 in amount are paid.

"Through discharge of my duties as secretary, it was made known to me that officers of the Medical Society of Milwaukee County believed that certain physicians, members of their Society, had violated the principles of medical ethics. It was also made known to me that efforts to secure an amicable adjustment had failed, and that in the judgment of the officers of the component society proceedings looking toward a formal determination of the ethical questions involved had become absolutely necessary and essential. Upon a warning by me to such officers that out of my experience it was essential to follow a certain procedure with exactitude to the end that both the rights of the members involved and those of the component society should prevail in the interest of absolute justice, a request was made of me whether we could render capable legal assistance looking toward that end. The Secretary accordingly authorized Mr. Fred M. Wylie of Milwaukee to render such assistance to the Medical Society of Milwaukee County and thereby to the members concerned. It is specifically to be noted from the record before you on page 4, second paragraph, and more on particularly page 27, that Mr. Wylie stated that his employment in the interests of the State Society was 'to see that all the protection to which these members, who are members of the State as well as the County Society, that all the protection to which they are entitled is given, and it is my function in so far as I am employed by the State Society to act as a check upon any tendency, if there is any, to proceed other than in a regular way and give these accused members every opportunity to which they are entitled under law and under the rules of the State and County Societies.'

"For the purposes of the record then, may I state that Mr. Wylie's employment for the purpose outlined by him was made by myself, as secretary of the Society, in accordance with previously established policies of the Society, approved by the House of Delegates, but without specific knowledge as to such employment in this instant case by any member of this Council. Secondly, may I state for the record that Mr. Wylie has never been paid a retainer and is under no retainer now. Third, it should be clearly understood that his employment by the secretary in the specific case before you terminated at the conclusion of the last hearing of the cases by the Medical Society of Milwaukee County. Finally, it should be stated for this record that with the exception of employment during certain legislative sessions, Mr. Wylie has not been and is not now legal counsel of this Society, and that in the past and in the future he, like other attorneys employed for legal counsel of the Society, is employed only for the specific question before him and for the term of work assigned.

"The Secretary, in conclusion, wishes to cite in justification of his action, the same statement of the judicial council of the American Medical Association as cited by attorney for the appellants, and in particular that sentence which says, 'It must also be remembered that (in expulsion proceedings) orderly procedure and common legal principles are the right of, and a protection to, innocent and guilty alike.'

"The Secretary wishes to make plain that statement of the attorney for the appellants in the following respects is factually untrue:

(a) That Mr. Wylie was retained by the Council of the State Society to conduct the hearings in all these cases.
(b) That his fees will be paid by the Council.
(c) That the Council is an interested party upon the hearings.
(d) That the Council has been a party to the expulsion of the appellants.
(e) That the membership of this Council at the present time is other than an uninterested party.
(f) That the Council will be advised in any shape or manner in its conduct of this appeal or its subsequent decision by Mr. Wylie or his assistants.
(g) That Mr. Wylie is legal counsel of the Society for any and all purposes.

"This statement is made for the record that there may be no misunderstanding which would in any way affect the rights and privileges of the appellants for a fair hearing before this impartial body.

Respectfully submitted,
J. G. Crownhart.
Secretary."

The Secretary further stated for the record that each of the physicians concerned had been notified of the day and hour of the appeal, and it was stipulated by their attorney that their non-appearance was a voluntary act on their part, their desire being to be represented only by legal counsel.

Mr. Hayes objected to the presence of Dr. James C. Sargent, vice-speaker of the House of Delegates, and thereupon Doctor Sargent withdrew from the room voluntarily.

Mr. Hayes pointed out that an entire section of his brief referring to the appeal of Doctor Wolters had been omitted by his printer, and asked the Councilors to regard his remarks in the brief as applying to Doctor Wolters, as well as to the other appellants. Mr. Hayes then presented the appeal argument until twelve o'clock noon.

It was thereupon moved by Blumenthal-Smith that the Council take the appeal under consideration and schedule it for discussion and decision, if then reached, on Tuesday afternoon, September 8. Carried.

4. Confirmation of Mail Ballots as Follows:

(A) Authorizing medical service experiment by the Medical Society of Milwaukee County. Moved by Smith-Lambert that mail ballot (A) be confirmed. Carried.

(B) Suggesting that no action be taken with reference to circulation of advertising literature as proffered by the Life Insurance Company. Moved by Heidner-Smith that mail ballot (B) be confirmed. Carried.

(C) Confirming a conference telephone call on Thursday, February 20, at 9:30 p. m. as follows:

"Those in attendance: Dr. A. W. Rogers, Dr. F. W. Pope, Dr. W. Cunningham, Dr. H. A. Jegi, Dr. G. R. Duer, Dr. J. W. Lambert, Dr. F. E. Butler, Dr. J. F. Smith, Dr. J. Dean, Dr. R. M. Carter, Dr. G. Gundersen, Dr. J. C. Sargent, Dr. Rock Sleyster, Mr. J. G. Crownhart, Secretary.

"The conference operator in Chicago called the roll and reported the above listed members of the Council present.

"The Secretary advised the Council that circumstances presented themselves which made it impossible to hold a meeting of the Council in Milwaukee as had been planned."

1. It was moved by Butler-Blumenthal that the conference vote be confirmed wherein the secretary was authorized to present the position of the Society on the subject of sickness insurance. Carried.
2. It was moved by Jegi-Johnson that the conference vote authorizing a special budget of $1,200 for work in the field of medical economics be confirmed. Carried.
3. It was moved by Smith-Pope that the conference vote appointing Dr. A. H. Heidner, West Bend, as councilor for the Fifth District to succeed Dr. Charles Gleason, deceased, until the annual meeting of the House of Delegates in September, 1936, be confirmed. Carried.
4. It was moved by Blumenthal-Butler that the conference vote disapproving of plans for the payment of medical services for the indigent based upon contributions of the well for payment for those who are ill (on the insurance basis) be confirmed. Carried.

5. Dental Society Communication

The Secretary presented the following communication from the State Dental Society:

"For a long time we have felt the need of a Division of Dentistry in the State Board of Health under the direction of a dentist. Several years ago an attempt was made to have a dentist on the State Board of Health but we were advised to postpone our efforts a while.

"At this time with moneys made available to the State Department of Health under the Social Security Act we are determined to institute the Dental Division.

"We regard the establishment of the Dental Division as an important health measure and we feel certain that this opinion is shared by the State Medical Society of Wisconsin in these efforts.

Very sincerely yours,
M. C. Hanson, *President,*
Wisconsin State Dental Society."

It was moved by Smith-Pope that the position of the Dental Society be endorsed. Carried.

6. Auditing Committee Report

The Auditing Committee consisting of Councilors Blumenthal, Pope, and Smith reported that they had inspected the audits, of the Treasurer, the Secretary, and the Secretary as Managing Editor; that they were found to be correct, and it was moved by Blumenthal-Gavin that the audits be approved and accepted. Carried.

7. Life Memberships

The Secretary reported that the Douglas County Medical Society recommended for life membership Dr. P. G. McGill, and that the Milwaukee County Medical Society recommended for life membership Dr. Philip Schmitt. Both were seventy-six years of age, and both met the requirements of the by-laws.

It was moved by Johnson-Butler that life membership be granted Dr. P. G. McGill. Carried. It was moved by Blumenthal-Jegi that life membership be granted Dr. Philip Schmitt. Carried.

8. Immunization Program

A proposal for making more effective an immunization program in the field of smallpox and diphtheria was presented to the Council by the Secretary and discussion followed, in which Councilors Heidner, Pope, Rogers, Cunningham, Smith, Butler, and Lambert participated. Discussion by Councilor Smith of activities of P. T. A. and county nurses with regard to tuberculosis survey.

It was moved by Butler-Gavin that the Secretary present the proposal to the State Board of Health for their consideration. Carried.

9. County Physician

The Executive Committee of the Council recommended that a member of the Society be asked to appear before the Council to discuss a matter of contractual relationship as county physician. The situation was discussed by Councilors Butler, Heidner, and Cunningham, and it was moved by Heidner-Jegi that the physician concerned be asked to meet with the Council at the September meeting. Carried.

10. Practice of Radiology and Pathology

The Milwaukee Roentgen Ray Society, through its president, petitioned the Council to cause the Society through its central office to communicate to the heads of all hospitals in the State the resolution adopted by the 1935 House of Delegates. A discussion followed in which Councilors Pope, Blumenthal, Smith, Heidner, Rogers, and Butler, Mr. Wiprud, and Treasurer Sleyster participated. It was moved by Blumenthal-Smith that the suggestion be referred to the House of Delegates without recommendation. Carried.

11. School Injuries

The Secretary presented to the Council Mr. Paul F. Neverman, director of the Wisconsin Interscholastic Athletic Association. After a forty-five-minute discussion of the school athletic situation, Mr. Neverman suggested the appointing of a committee within the Society to meet with a representative board of the Interscholastic Athletic Association, for a threefold reason: (1) To promote physical education; (2) To take up any discussion of injuries with family physician; and (3) To promote the prevention of injuries.

It was moved by Pope-Lambert that the Chairman appoint a committee of three for this purpose. Carried.

12. Revision of Council Resolution on January 4, 1936

The Secretary presented the following revision of the resolution of January 4, 1936, to the Council for their consideration:

> *Subsequent to the adoption of the Council Resolution of January 4, 1936, pertaining to the use, by physicians, of combined loan and collection procedures, the Division of Consumer Credit of the State Banking Commission held informal conferences and hearings re the practices to which the resolution referred.*
>
> *Thereafter, that Division informed your Society that it knew of no violations of either rules of the Commission or of provision of statute by any licensed "small-loan" company.*
>
> *This resolution is presented in revised form to indicate that it, in no manner, refers to any company making loans under a small-loans license, none of which are engaged in the collection business, and to precisely meet the situation for which intended.*

WHEREAS, On January 4, 1936, this Council of the State Medical Society of Wisconsin adopted a resolution pertaining to the ethical aspects of the situation presented when a member of this Society contracted with direct loan and finance companies for collection service, and,

WHEREAS, Since the adoption of such resolution, further information has been presented to this Council pertaining to such situation; and further, it appearing that those companies designated as licensees under the so-called "Small Loans Act" (Ch. 214, Wisconsin Statutes), *did not then and do not now engage in the collection agency field,* but only so-called "direct loan or discount companies" (licensed under Ch. 115.07 and 115.09) are so engaged; and further, the Banking Commission of the State of Wisconsin having held informal hearings and conferences concerning the question presented and, as a result thereof, having stated by letter directed to the Society, that no licensed small-loan company was engaged in such procedures, and asking that it be made clear that such was the case and that only so-called "direct loan and discount" companies as distinguished from licensed "small loans" companies engaged in both collection and loan business, and it now appearing that it is desirable that such resolution be rephrased and revised to meet the exact situation concerning which it was intended to meet.

Now, therefore, be it resolved, By the Council of the State Medical Society of Wisconsin, acting under the power granted it by the constitution and by-laws of this Society, that the resolution above referred to, be and hereby is revised to read as follows:

WHEREAS, the Council of the State Medical Society of Wisconsin is cognizant of the fact that, in recent months, certain *direct loan and discount companies* (as distinguished from licensed small loan companies) have expanded their activities into the collection agency field; that, by combining these two fields of business within the one organization,

the collection business becomes a "feeder" to the loan business in that thus are secured the names of those who are financially distressed and to whom a loan may appear to be an advantageous and expedient method of alleviating the pressure of indebtedness, and,

WHEREAS, The Banking Commission of the State of Wisconsin, Division of Consumer Credit, by John F. Doyle, Supervisor thereof, and Hon. G. Erle Ingram, special counsel therefor, under date of February 19, 1936, addressed a communication to such direct loan and discount companies (as distinguished from licensed small loans companies) in which it was stated among other things that it had come to the attention of the Banking Commission that certain loan companies had combined the business of "adjusting accounts, making loans and discounting paper with that of collection"; that it further appearing that in some instances the following had been the practice:

a. "The obligation so signed includes additional amounts for interest or finance charges."
b. In some cases, "cash is not advanced to the creditor to extinguish the debt for which the new obligation is given."
c. That "inasmuch as loans are presumed to be predicated upon actual cash outlays, this procedure makes the addition of interest or finance costs questionable in its relation to the rate set forth in Wisconsin regulatory acts."

WHEREAS, The Banking Commission, in such letter, further stated that such direct loan and discount companies, having anything to do with collections, should maintain a clear cut distinction between loans and collections, and "no method of operation should be adopted which uses the relationship between debtor, creditor and loan company for the purpose of subterfuge to induce loans to be made which would not be made in the ordinary course of the loan business." That if "The loan is merely predicated upon a plan whereby the creditor is the dominating figure in making a loan which would not have otherwise been granted to the debtor himself, then this is not a proper loan transaction and should be handled as an ordinary collection. If notes are to be taken, or new evidences of indebtedness entered into, they should be made directly to the creditor, who may, if he desires, assign them for collection, but in no instance should such note or evidence of indebtedness be made directly to a finance company, thus incurring additional interest and finance costs when they are not as a matter of fact loans," and,

WHEREAS, The Commission further stated "that it is better for finance and loan companies to refrain from combining in the same office collection business with the loan business. If it is desired to operate both lines of business there should be a segregation of each with separate and distinct offices, which said offices should be operated under different names and as separate entities. It is hoped that any companies now combining both functions in the same office will gradually segregate each line and establish separate offices as we consider this to be better business practice."

WHEREAS, Certain such loan and discount companies (as distinguished from licensed small loan companies) are continuing to solicit the physicians of this state for their collection business, and it having become increasingly apparent to the Council that physicians are not aware of the grave professional problems involved by their participation in any such collection and financing scheme, or the true costs to the patient thereof; and,

WHEREAS, The Council believes that if physicians generally, or any of them, participate in such schemes, there will inevitably result therefrom:

1. A loss of public respect of the medical profession in its devotion, not only to the public health, but to the broad field of public welfare;
2. The loss of the physician-patient mutual friendship and confidence which now exists so strongly as to be, individually, a bond of affection and regard;
3. A commercializing of the profession of medicine in that the physician becomes a party to a contract in which his patients are induced to use high interest rate procedures to finance costs of medical care. Such procedure does not reflect the true position of the medical profession of this state.
4. An increase in cost to the patient in obtaining, and to a lesser degree, to the physican in supplying, needed medical care.

Now, therefore, be it resolved, By the Council of the State Medical Society of Wisconsin, acting under the powers granted to it by the constitution and by-laws of this Society, that the participation in any such collection scheme by any physician a member of any county society, and by reason thereof, a member of this Society and of the American Medical Association, shall be, and hereby is declared to be, an act of unprofessional and unethical conduct and therefore, shall be, and is hereby declared to be, good and sufficient cause for the revocation of membership in such society.

Be it further resolved, That the Secretary of this Society immediately advise the membership of this resolution, which shall thereupon become effective and in full force.

Councilors Smith, Rogers, Pope, Johnson, Heidner, and Jegi, and Treasurer Sleyster participated in the discussion. It was moved by Johnson–Butler that the revised resolution as suggested by the Secretary be adopted. Carried.

The Secretary presented to the Council the fact that counsel for the State Banking Commission had requested the Society to act as complainant in the case of violation affecting the medical profession.

It was moved by Johnson-Butler that the Council recommend that the State Banking Commission investigate the operations of the company concerned, as at present conducted, with a request that a report be made to the Society. Carried.

13. Scientific Progress

The Secretary presented to the Council certain information to be conveyed as a personal message to officers of component county medical societies.

14. Adjournment

There being no further business to come before the Council, adjournment was had at 5:00 p. m.

J. G. CROWNHART,
Secretary.

Approved:
A. W. ROGERS, M. D.,
Chairman of Council.

ATTEND THE ANNUAL DINNER
THURSDAY, SEPTEMBER 10
HEAR
DR. MORRIS FISHBEIN

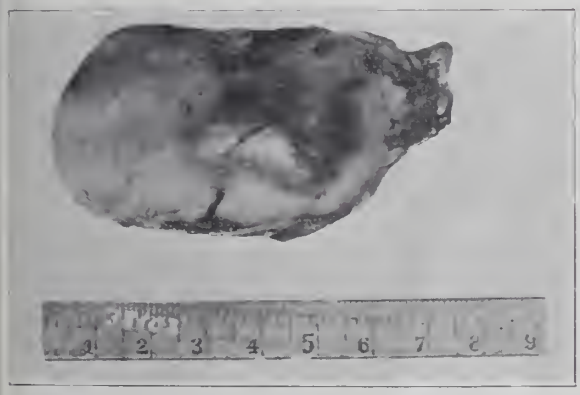
MUCOCELE OF THE APPENDIX

(Continued from page 633)

companied by a mass that mucocele of the appendix should always be considered. More careful x-ray studies may prove of value in the future in recognizing this condition.

When a mucocele is found on opening the abdomen, it should be removed with as great care as possible so that its contents may not escape into the abdominal cavity. Provided this is successfully accomplished the prognosis is excellent. It is well known that the removal of mother cyst in a malignant ovarian cyst sometimes results in a cure of the condition even though it has spread to other structures. So too it is said, removal of the appendix may stop pseudomyxoma peritonei of appendicular origin, providing only the jelly-like material and not the mucous-secreting cells were present in the peritoneal cavity.

Mucocele of the appendix is an unusual pathological lesion judging from the literature, but undoubtedly many cases have not been reported or perhaps recognized. It is hoped that the report of this case will increase interest in this condition and lead to its early recognition and treatment.



Mucocele of the appendix. Specimen intact.

CASE REPORT

Case 38103. Male, age 66. Patient came to the clinic June 10, 1933, stating that he had been under observation by his family physician, Dr. E. J. Helgeson, of Evansville, for several days for the possibility of appendicitis. For some time he had been troubled with gas and occasional spells of indigestion. During the past week he had suffered from mild attacks of abdominal pain in the right lower quadrant. There was no history of weight loss nor of unusual bowel disturbance.

Physical examination revealed nothing but a slight tenderness and a questionable mass in the right lower quadrant. In the absence of any acute abdominal pain, together with a normal blood count and temperature, acute appendicitis was considered eliminated. On account of his age the possibility of malignancy of the ascending colon could not be excluded. The patient was advised to return to the care of his physician and to come back in a few days for further study.

This he did sooner than expected, stating that he had felt much worse. He had not vomited, but the pain had increased considerably. Examination now revealed a definitely palpable mass in the right lower quadrant. Immediate exploration was decided with the temperature 100.2° and blood count still normal, the most probable diagnosis was considered malignancy, although a possible appendiceal mass could not be excluded.

Operation was performed under spinal anesthesia using a right rectus incision, and at once disclosed a most unusual pathological condition. In the right lower quadrant there appeared a sausage-shaped object, 10 by 4 cm., somewhat the color and consistency of an ovarian cyst. It was closely adherent to numerous coils of small bowel. At first it was not possible to locate the appendix, but as the cyst was carefully freed and elevated, the remanent of the appendix appeared on the cyst wall. It was possible to remove the cyst intact from the cecum. The patient made an uneventful recovery and has remained well to date.

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THE JOURNAL BOOK SHELF

BOOKS RECEIVED FOR REVIEW

Endocrinology in Modern Practice. By William Wolf, M.D. W. B. Saunders Company, Philadelphia, 1936. Cloth $10.00.

The Eye and Its Diseases. By 82 International Authorities. Edited by Conrad Berens, M.D., ophthalmic surgeon, pathologist and director of research, New York Eye and Ear Infirmary. W. B. Saunders Company, Philadelphia, 1936. Cloth $10.00.

Heart Disease and Tuberculosis. By S. Adolphus Knopf, M.D., New York University and Paris. This book issued by the patients of the Potts Memorial Hospital for the rehabilitation of the tuberculous. The Livingston Press, Livingston, New York, 1936. Price $1.25.

Why Bring That Up? By J. F. Montague, M.D., medical director, New York Intestinal Sanitarium. The Home Health Library, New York.

Theory and Practice of Psychiatry. By William S. Sadler, M.D., chief psychiatrist and director, the Chicago Institute of Research and Diagnosis. The C. V. Mosby Company, St. Louis, 1936. Price $10.00.

Disability Evaluation. By Earl D. McBride, M.D., assistant professor in orthopedic surgery, University of Oklahoma School of Medicine, Oklahoma City. J. B. Lippincott Company, Philadelphia, 1936.

Facts About Commercially Canned Foods. The American Can Company, 1936.

Minor Surgery. By Frederick Christopher, M.D., associate professor of surgery at the Northwestern University Medical School, Chicago. Third edition, reset. W. B. Saunders Company, 1936. Cloth $10.00.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

The Single, the Engaged, and the Married. By Maurice Chideckel, M. D. Eugenics Publishing Company, Inc., New York.

Many books have been written upon the sex life and this book adds to a voluminous literature. A reasonable review of the substance matter of such a treatise cannot be successfully written. On the other hand to those who are interested in sex matters and sexual adjustment, perhaps this book is as good as any that has appeared to date. R. E. C.

The Psychology of Dealing with People. By Wendell White, Ph.D. Assistant professor in psychology, University of Minnesota. The Macmillan Company, 60 Fifth Avenue, New York, N. Y. Price $2.50.

A useful book for the intelligent patient or layman who is interested in the problems and mechanisms of mental health. Although there is nothing new, the material is presented in a popular, easily readable style. The author has many worth while suggestions for those who are capable of treating themselves. For the psychopathologist the book offers little from an academic point of view though it may be of aid to the clinician in a better understanding of his public. A. C. W.

The Balanced Diet. By Logan Clendening, M.D., professor of Clinical Medicine, University of Kansas. Author of "The Human Body," etc. D. Appleton—Century Company, New York, 1936. Price $1.50.

This volume is a compromise between a presentation of diet problems for the general practitioner and a simple book on diet for lay reading. The practitioner will not find the book helpful because it fails to give enough detail to help out in problem cases of many sorts and is not to be compared with two or three excellent volumes by physicians which have come to publication in the last two or three years. On the other hand, the lay reader will find the general introduction on the principle of diet readable, but perhaps unduly elaborated with a race through the history of nutrition and dietetics. More important, however, is the fact that a large share of the book is devoted to concrete but sketchy suggestions about diet therapy, which would only serve to encourage the layman to make his own diagnosis and attempt his own treatment without the physician.

The reviewer can only suggest that this book is an unhappy compromise and not worthy of its author.

E. L. S.

Synopsis of Diseases of the Heart and Arteries. By George R. Herrmann, M. D., Professor of Clinical Medicine, University of Texas. C. V. Mosby Company, St. Louis, 1936. Price $4.00.

This book is intended not as a reference work for the cardiologist, but primarily as a textbook for the medical student. It presents clearly and concisely the generally accepted principles of diagnosis and treatment of the common cardiovascular conditions, avoiding as much as possible controversial subjects. Appropriate emphasis is placed on the importance of the history and physical examination, and the principles of physical diagnosis are unusually well presented. One chapter is devoted to the essentials of orthodiascopy and a number of well chosen orthodiagrams representative of commonly encountered conditions illustrate the value of this method of examination in establishing a diagnosis. The chapter on electrocardiography is excellent. The mechanism of the various arrhythmias is clearly presented and illustrated by suitable tracings com-

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bined with schematic diagrams. The sections dealing with treatment, particularly of myocardial failure and coronary thrombosis, are very well done and contain, in addition to drug therapy, a number of valuable diet lists.

As the title indicates, this volume is a synopsis of our present knowledge of the common cardiovascular diseases. Most of the non-essentials have been omitted and the book should appeal to the general practitioner as well as the medical student.

C. M. K.

The Collected Papers of the Mayo Clinic and the Mayo Foundation. Edited by Richard M. Hewitt, M. D., Lloyd G. Potter and A. B. Nevling, M. D., Volume XXVII (Papers of 1935—Published 1936.) W. B. Saunders Company, Philadelphia, 1936. Cloth $12.00 net.

This yearly volume contains a great deal of knowledge for both the specialist and the general practitioner. There are many interesting points in diagnosis and surgical technic which are of great value to the members of the profession.

The papers which are abstracted and appear by title only can be obtained quite easily by following the most excellent bibliography which occurs after each article. J. W. G.

Certified Milk. Proceedings of the American Association of Medical Milk Commission, Inc. In conjunction with the Certified Milk Producers' Association of America, Inc. 1932–35.

This book is a rather detailed report of the meetings of the organizations which are most interested in the production and marketing of certified raw milk. In the reports of the various joint meetings of the association from 1932–1935, the reader finds a few interesting papers dealing with the research work being done on the differentiation of the various types of streptococci found in milk. The proceedings of the meetings of 1933–1934 and 1934–1935 deal chiefly with the problem of vitamin D milk, and the question of pasteurization of certified milk which, in view of the opposition of the Committee on Foods of the American Medical Association to raw milk, is a momentous one to the producer. K. B. McD.

Facts About Commercially Canned Foods. By American Can Company, 1936.

The average physician is presumably already acquainted with much of the material contained in this brief booklet. However, he may often find it convenient to have available in this condensed and convincingly documented form the types of information that are presented. These include the effect of allowing food to stand in opened tin containers; stability of the various vitamins in canned foods; foods used in infant nutrition; and definite facts to dispel the outdated but still widespread fears about such factors as the "Ptomaines," chemical preservatives, botulism, and the effects of iron and tin salts in modern commercial canned foods, The volume bears the Seal of Acceptance of the Committee on Foods of the American Medical Association. M.E.S.

The Patient and the Weather. By William F. Peterson, M. D., with the assistance of Margaret E. Milliken, S. M. Volume I, Part 2, Autonomic Integration. Edwards Brothers, Inc., Ann Arbor, Michigan, 1936. Price $9.00.

In their article on epilepsy Lennox and Cobb make the statement, "In fact so fast have we travelled that we have at last caught up with the father of medicine"—Wm. F. Petersen, professor of pathology at the University of Illinois, has endeavored in his work, "The Patient and the Weather" to develop in detail many of the original ideas of Hippocrates concerning the relationship of atmospheric conditions and the human constitution. A perusal of Part I—"The Footprint of Asclepius" should precede the reading of Part II which deals with "Autonomic Integration." This volume is not one to be taken lightly—it does not lend itself readily to fast or easy reading, rather it is something to be thoughtfully considered and slowly digested. Chapter I deals with the individual and concerns itself especially with the elusive something we term "constitution." After quoting various definitions given by Martius, Siebeck, Borchardt and Draper, the author points out that the two essential considerations are: (a) the germ plasm (genotype) and (b) the forces modifying it after fertilization (paratype). After a resume of various classifications of body builds (Kaup, Bautman, Scammon and Todd, Hippocrates and Kretschmer) Dr. Petersen considers the biophysical or biochemical aspects of the paratype including a consideration of the autonomic Trinity—biochemistry, the endocrines, and the nervous system. A discussion and follow through of certain interrelated functions is given as increased thyroid output—increased cell function—increased membrane permeability—greater oxidation—greater plasticity—lessened electrical resistance—capillary dilatation—greater colloid dispersion. The effect of the atmosphere on these various functions is taken up, prefaced by a consideration of weather terms as: cyclonic circulation, the winds, barometric alterations, polar fronts, storm tracks, heat and cold, etc. Thus with cold there is demonstrated in the human "cosmic resonator" a "relative alkalosis, vasoconstriction, relative anoxemia, metabolic stimulation and relative acidosis." The organism is considered in swinging in a "fairly consistent pattern through a rhythm of ARS (anabolism, reduction, spasm) and COD (catabolosm, oxidation, dilatation) phases influenced largely by atmospheric fluctuations. There follows a more detailed discussion of atmospheric changes, a chapter each on atmospheric pressure, temperature, humidity, sunlight, atmospheric electricity and ionization. Chapter 3 is introductory to the relationship between the atmosphere and the individual citing quotations from Sydenham, Fothergill, Mead, Johnson, Danvin, etc. Chapter 4 divided into thirteen large sections considers in detail the reactions of the four bodily types (pyknic, mixed, wiry-leptosome. leptosome), a summary of apparent constitutional differences, weights, basal metabolism

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rate, leukocytosis, oxidation, blood pressure, pulse, nonprotein nitrogen, sugar, cholesterol, chlorides, phosphates, carbon dioxide, blood phosphorous, calcium, potassium, protein, permeability, urine, headaches, cold, gastro-intestinal disturbances, moods, growth, dog reactions; numerous charts accompany all of these discussions. The material for these studies was gathered from prolonged observations carried out on volunteer subjects and correlated with reports from the weather bureau. Chapter 5 considers reactions of a normal pyknic and leptosome; Chapter 6 the bacterial carrier; Chapter 7 an interesting, detailed study of the normal male; and Chapter 8, in three sections, contains much valuable material on the female including menstruation, ovulation, etc. The reaction of children and their association with atmospheric changes is taken up in Chapter 9. Chapters 10, 11 and 12 consider such matters as more detailed blood changes, the Wassermann and Kahn reactions and leucocytic response in Hawaii. Chapter 14 considers season and climate in six sections and Chapter 15 ends with "The Human Organism as a Cosmic Resonator."

The present volume contains 781 pages and is priced at $9.00, each page being double-spaced and set up with a mimeograph-like type. This (apparently necessary from a financial point of view) makes a somewhat difficult approach. It is impossible in a brief review to do credit to a work which is so significant and truly scholarly. Most assuredly anyone interested in the problems dealing with physiological and psychological changes and their dependence upon environmental (atmospheric) fluctuations should add this volume to his research library. The material presented contains much food for thought and the author has succeeded in presenting it from the point of view of Cos and not from Cnidos.

A. C. W.

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The Library and the Reception Room at the Memorial Union will be devoted to scientific exhibits. The Committee on Scientific Exhibits has secured an unusually fine group of exhibits. Recesses have been provided during the scientific program to permit members attending the annual meeting to view these splendid exhibits. The following men will exhibit:

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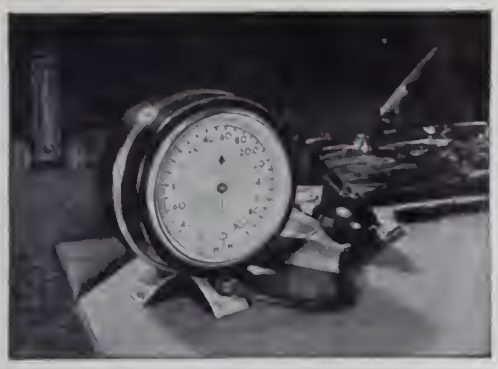

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Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154
N. Y. State Jour. Med., June 1935, Vol. 35, No. 11

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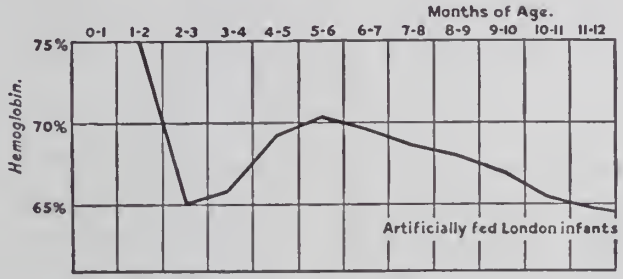

Hemoglobin level in the blood of infants of various ages. Note fall in hemoglobin, which is closely parallel to that of diminishing iron reserve in liver of average infant. Chart adapted from Mackay. It is possible to increase significantly the iron intake of the bottle-fed from birth by feeding Dextri-Maltose With Vitamin B in the milk formula. After the third month Pablum offers substantial amounts of iron for both breast- and bottle-fed babies.

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For these reasons, and also because of the low hemoglobin values so frequent among pregnant and nursing mothers (Coons,[4] Galloway[5]), the pediatric trend is constantly toward the addition of iron-containing foods at an earlier age, as early as the third or fourth month. (Blatt,[6] Glazier,[7] Lynch[8].)

The Choice of the Iron-Containing Food

1. Many foods reputed to be high in iron actually add very few milligrams to the diet because much of the iron is lost in cooking or because the amount fed is necessarily small or because the food has a high percentage of water. Strained spinach, for instance, contains only 1 to 1.4 mg. of iron per 100 gm. (Bridges.[9])

2. To be effective, food iron should be in soluble form. Some foods fairly high in total iron are low in soluble iron. (Summerfeldt.[10])

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That vitamin A exerts an influence on the growth of human infants and children is also generally accepted.

As early as 1919, a relationship between vitamin A in plant foods and plant pigments was postulated. Research since that date has indicated that beta-carotene and some related compounds may be considered as provitamin A (3).

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Vitamin A in the form of carotene may be present in yellow, green or red pigmented fruits and vegetables—in the two latter cases, the yellow color of carotene being masked by other pigments present. Color alone, therefore, is not always a reliable index of potential vitamin A potency.

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(1) 1927. J. Exp. Med., *46*, 699
(2) 1935. J. Nutrition, *9*, 735
(3) 1929. Biochem. J., 23, 803
(4) 1931. J. Biol. Chem., *94*, 185
(5) a. 1933. J. Am. Diet. Assoc., *9*, 295
b. 1931. J. Nutrition, *4*, 267
c. 1935 Am. J. Pub. Health, 25, 1340
(6) a. 1925. Ind. Eng. Chem., *17*, 69
b. 1926. Ind. Eng. Chem., *18*, 85

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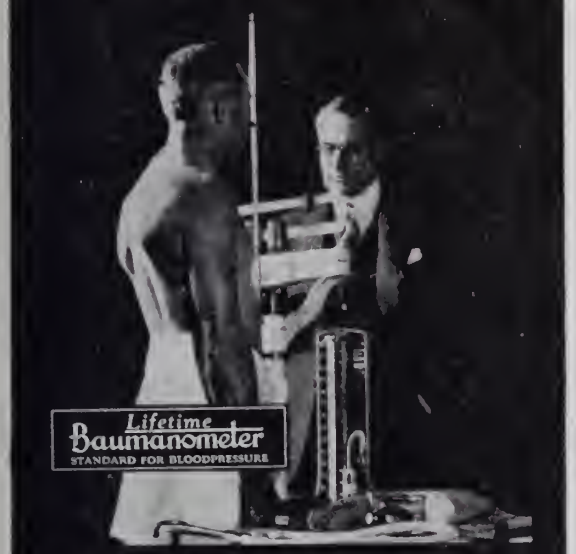

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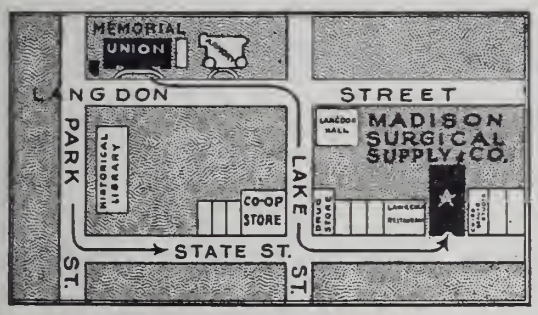

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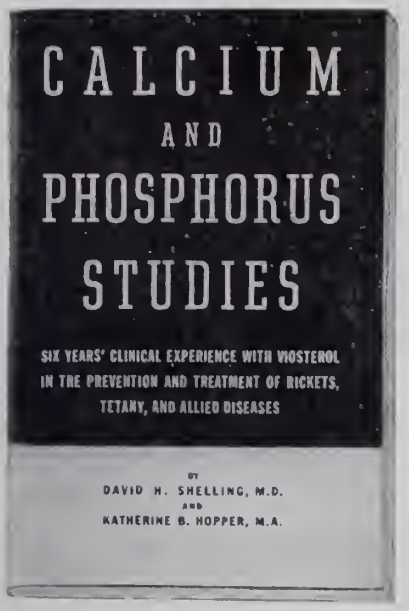

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THE WISCONSIN MEDICAL JOURNAL

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The Nervous Patient in the General Practice of Medicine*

By F. J. HIRSCHBOECK, M. D.
The Duluth Clinic, Duluth, Minn.

UNTIL the beginning of the nineteenth century the practice of medicine was still so closely linked with ignorance, superstition and charlatanism that to our present standards it must have closely resembled the quackery of today. It is true that a few leaders, advanced for their time, like Paré, Vesalius, Hunter and Sydenham, strove to place it on a higher level, but the average of medical practice was, indeed, deplorable. This lack of enlightenment and progress was due to the slow diffusion of learning and knowledge, the dearth of adequate teaching, the lack of coordinated international exchange of ideas and the low average of education among the laity.

At various times the contemporary literature indicated to what a low estate the profession had descended and frequently made it an object of ridicule rather than respect. This has been exemplified on occasion by the writings of Moliere in his satirical indictment of the profession; by Hogarth in his paintings; by Charles Reade, who gives a masterful description of the medieval doctor in the "Cloister and the Hearth"; and many other writers.

The treatment of disease was undertaken through the agency of a distorted traditional pseudo science tinctured with mythology, superstition, religion, polypharmacy and witchcraft which appealed to the fear and hope of the afflicted, but in the absence of true scientific skill, with little likelihood of relief for the former or fulfilment for the latter. The medical man who commanded the greatest recognition was the one most endowed with self-confidence, bombast and egotistic conviction, but rarely blessed with scientific attainment.

The nineteenth century may be considered as the true medical renaissance and it brought about a remarkable change in scientific achievement with the phenomenal discoveries rapidly made in chemistry, physics, pathology, bacteriology, surgery and their ancillary sciences. These additions to our knowledge effected such rapid changes, and so revolutionary was their significance that medicine shortly developed a *materialistic* trend, culminating in the production of physicians who were so imbued with objective study as to lose sight, almost wholly, of the possibilities of affective and emotional disorders and their vast connotations.

It is still common, as the heritage of this recent materialistic epoch to see physicians dismiss patients with affective disorders as being victims of the figments of their imagination and not worthy of the expenditure of time of the consultant. It is unfortunate that the medical profession has so long neglected the intelligent consideration of this large group of patients, comprising, it is said, to a greater or lesser measure, fifty per cent at least, of all medical practice.

Only recently a few voices have been raised who have sought an integration of the best observations of all periods of medical thought. That the ancients were not entirely devoid of the significance of all phases of disease is manifest from their writings. Hippocrates, who gave medicine its first scientific impression with his impartial but skilful observations, said, "This is the reason why the cure of so many diseases is unknown to the physicians of Hellas — because they are ignorant of the whole." The emphasis of the Greek physicians on the humors of the body is illustrated by the ingenious manner in which they attempted to estimate the varying temperaments of an individual.

* Presented March 26, 1936 — University of Wisconsin Convocation, Madison.

Blood was allowed to clot in a vessel and the four layers developed in the process of sedimentation were thought to be indicative of the relative influence of the specific humors. The lowest dark red layer was thought to be black bile and representative of the melancholy humor. The second layer from the bottom, more bright red in color, represented the sanguine temperament; the buff layer immediately above, so-called phlegm, or the index of a phlegmatic temperament; and above all, the supernatant, yellowish serum which was thought to be indicative of the degree of predominance of the bilious temperament. Socrates and Plato gave impetus to mental analysis and study, and the latter particularly anticipated much of what is now dignified by the term "psychoanalysis," as his writings will indicate. Later, however, Oriental fatalism, Roman pragmatism, and Christian idealism and asceticism characterized certain periods in history where a contemplation of the physical being, the mental life, or the spiritual awareness prevailed individually, but no integration of all of them into a unified application was attempted.

LACK OF UNDERSTANDING

The lack of understanding of the nervous patient is due to several factors. *Psychology* and *psychopathology* are relatively new subjects in our medical school curricula and have been heretofore relegated to the intellectual, but, presumably, impractical elite. The appreciation and significance of these subjects in medicine are only beginning to be noted. It is also true, as pedagogy has observed, that the adolescent mind is, as a rule, not adequately prepared for the appreciation of the more abstract sciences, but with the longer courses at present prevailing and the maturity of the medical student their neglect no longer has a place in our curricula.

The medical schools likewise in their teaching have not expended sufficient time and space to a consideration of psychic and emotional problems, partly because medical students, freshly emerging from the rational and material sciences, are not interested in the abstractions involved in the consideration of nervous and psychic aberrations in the ill, preferring broken bones to broken hearts, and depressed T. waves to depressed minds. With the crowding in our teaching hospitals, the authorities usually lack the room or the inclination to give space and sustenance to the neurotic patient which is extended less grudgingly to those with glaring objective bodily disorders. To those who truly appreciate the ramifications of mental illness there is nothing more interesting in medicine than the unfolding and unravelling of the psychic and emotional background of these innumerable victims.

I believe also that this group of patients in the so-called neuroses and psychoneuroses are neglected because no group of physicians has ever specifically interested itself in their problems. Since they are not truly psychopathic and usually dread the idea of such an intimation, they do not consult the psychiatrist who is the most competent to interpret their reactions. Not everybody who is in general practice and not very many of those who practice in the more material branches of medical thought, such as the surgeon and orthopedist, are able to have the sympathetic understanding or intellectual rapport necessary for the satisfactory treatment of these patients. Dr. Walsh one time stated, "It is more important to know what type of person has the disease than to know the disease with which the patient may be afflicted."

I believe your university has not been blind to these common errors in medical teaching and I have frequently, in the past, observed and emphasized this trend in previous discussions. Your extra-mural teaching may be made a most fertile field for fostering an understanding of these problems, and your Dean's invitation to have me present this subject is an index of his awareness of its possibilities as you enter practice. I presume he has asked me to present this subject because he knows that the man on the firing line, as it were, knows best its far-reaching ramifications, provided he has the background of a rather extensive experience and a humanitarian interest in medicine. After all, you shall all be precipitated soon into the welter and conflict of these problems, and it is my purpose to bring these words from

the outlying trenches of practice so that you may prepare yourself in this source of supply for the eventualities you must later face.

I sincerely believe that discussions of this character are helpful. The study of psychology and psychopathology *should* be given its due place in the medical curriculum. Beds in the teaching hospitals *should* be reserved for the instruction of these problems and clinics given at least weekly to a consideration to their formation, interpretation and treatment. Apropos of this I suggest that you read Peabody's lecture on the "Care of the Patient." In this thesis he expatiates on the limited extent to which psychotherapy is practiced by the average physician. Is it any wonder then that the afflicted turn to the unorthodox cults and seek aid from the latest fads and the crafts of healing, such as osteopathy, eclecticism, mesmerism or chiropraxis in turn, and temples of Christian Science are raised at every hand in silent testimony to our inefficiency?

FUNCTIONAL vs. ORGANIC

An approach to the question of psychogenic disorders at once raises the question as to the meaning of "functional" and "organic" disease, a distinction which is valuable on clinical grounds, but hardly in conformity with the present physiologic and anatomic basis of mental processes. There are adherents on the one side who believe in a biologic duality which marks a distinct cleavage of body and mind, as suggested by the psychoanalytical school; on the other hand, those who integrate them into a living unit, towards which the experiments of Cannon, Sherrington, Pavlov and others, lead. The question of relationship is an old one, dating from time almost immemorial and has been the basis of debate through the ages to the experimental efforts of today. With such antithetical postulates an intermediate position is probably more nearly correct and the clinician presently needs not be so concerned with a hairsplitting differentiation as to the mode of operation. That the distinction is *not* complete and definite, numerous examples illustrate.

It is known that so-called functional states may be subsequently associated with organic change. If an affective disorder is severe, persists long enough, or is repeated frequently enough, structural changes may ensue, as witnessed by the thyrotoxicosis of Graves' disease and its relationship to emotional stress and the development of essential hypertension with cardiac hypertrophy when we have the conjunction of a susceptible vascular tree and an unstable neuropsychic mechanism. And many other questions arise, some of them still impossible of reasonable solution. What is the relationship between emotion and glycosuria? What is the basis of migraine? Of epilepsy? These and many other illustrations suggest themselves.

On the contrary, other emotional reactions may yield no more than a transitory occipital or vertical headache, a temporary palpitation or a casual faintness hardly to be considered as indicative of structural alteration. The results of experimentation are still fragmentary and the problem is not easily solved. Experiments are difficult and only partially and isolatedly conclusive. Animal experimentation and an attempt at analogous application to the human is futile because of the absence of the intellectual and ethical components in the lower species. Some of the experiments remind one of the experimental scientist who had six children and baptized three and kept the remaining three unbaptized as controls for the experiment. The laboratory data concern chiefly the reflex and instinctive attributes of living organisms. Human emotional and intellectual reactions are necessarily difficult to study because of the extreme complexity and multiplicity of our psychic patterns.

Certain points, however, (paraphrasing from Dunbar) remain as a result of these investigations.

1. It is important to remember that a *personality* is no disembodied spirit, but rather an expression of an organism of complex structure and highly integrated function which is intimately related to the complex network of the environment of which it forms a part. The linkage of psychic study with those involving the major cerebrospinal elements, the diencephalon, the

autonomic nervous system and the endocrine structure is only too manifest and further search into the possible methods by which changes occur from the nonstructural evidences of malady to the terminal organic sequence may yet prove fruitful.

2. The organismal theory, and it is still only a theory, is fundamental to a thorough understanding of disease processes. It is increasingly useful in facilitating the study of the physiopsychologic reaction of the human organism. Our conceptions of health and disease are being remolded, as best expressed in the clinician's statement, "There is no such thing as a purely psychic illness or a physical disorder, but only a *living* event taking place in the *living* organism which is itself *alive* only by virtue of the fact that in it, psyche and soma are identified in a unity." The question always presents itself as to the extent to which a condition is psychic and to what extent physical. This is more proper than to separate disease into that which is called "functional or nervous" and that which is organic and structural.

Although this discussion of preliminary considerations is important as the basis for an understanding of the problem and its future study, and to stress the importance of neurotic disease, it has less of a strictly applicable value in its clinical adaptation. To you and to me the important element lies in the effort we exert in our practice in relieving the suffering patient from his ills, often more devastating to his comfort than physical illness and also in establishing and maintaining the respect of the laity toward a profession whose ideals should ever be truly altruistic and mindful of its serious responsibilities.

HEREDITY—ENVIRONMENT

The fragility of human behavior in the face of its multiple hereditary and environmental factors is easily imagined. The intellect of the human is a relatively recent biological development, as Jeliffe has suggested in his statement that the present generation is to those that have gone before in phylogenetic development as the present moment is to a thousand years. New functions are easily disturbed and in times of stress the more recent attributes first show the effect of strain. It is thought, in fact, that the vulnerability of the human eye to strain is occasioned by the late biological use of the human eye for its function in reading and working, and that the muscles of the human back are so frequently a source of disability because of the upright position assumed by man in his development. It has been said in explanation of this vulnerability, "Every person is in part neurotic and every neurotic person much normal."

Given a heredity with a predisposition towards nervous symptoms, and environment soon supplies the match to the kindling of abnormality. Oliver Wendell Holmes once stated that our bodies are like omnibuses in which our ancestors are seated and some of them are unwelcome passengers.

That heredity plays an important part is betokened by the fact that where inbreeding occurs the tendency is enhanced, as exemplified by certain races and families. On the other hand, hardy physical spirits are less likely to exhibit the character. The explorer, the colonist and the pioneer do not easily fall a victim to the neuroses, and Dr. Grenfell has stated that they are virtually unknown in Labrador where the hardihood necessary to existence, and unfavorable environment preclude inhabitation by unstable folk. Hereditary factors predicate one's susceptibility or resistence to emotional exaggeration, as the case may be. The weaker pattern renders the patient frequent opportunities for an exhibition of a failure of adjustment to environmental influences and the stronger is frequently only further fortified in his endurance, by experience. Witness, for example, the fortitude exhibited by Captain Scott and his companions when the game was up and they considered the possible deliberate termination of their lives: "I do not think we can hope for any better things now. We shall stick it out to the end, but we are getting weaker, of course, and the end cannot be far." There are many examples of similar heroism.

Because of his inherent weakness, it is difficult for the nervous person to adapt

himself to environmental influences and as a result he frequently exhibits an arbitrariness of will and a selfishness of interest, since it is easier for him and more satisfying to his ego to have the environmental milieu modified to suit his weaknesses rather than that he constantly adjust himself, a process in which he usually fails. This failure of adjustment to difficult situations is one of the chief reasons for a nervous person's dissatisfaction with his station in life, and his occupational, marital and social responsibilities. The statement, once made by Dr. Mayo, that the patient is miserable, but the relatives suffer, is descriptive of the tyranny these patients some times impose on those about them. It is this type of patient with his relatively simple behavior disturbances who offers diagnostic difficulty to the practitioner. They are not as obvious as the more serious psychoneuroses and borderline states and the true nature and background of the difficulty is oftentimes hidden by the smoke screen of subjective somatic symptoms or deliberate denial so that the fundamental basis for the symptoms is obscured. The true psychoses, the marked perversions, hysterias and obsession neuroses carry their diagnostic label with them, but one's diagnostic acumen can be severely taxed by the patient who has no more than simple anxieties, fears and the more simple nervous instabilities and somatic symptoms.

The essential difference, therefore, between the neurasthenic, so-called, and the normal person is largely one of personality and behavioristic alterations and he differs chiefly in his irrational and unnatural response to adverse stimuli. One of the outstanding characteristics is his fatigability, well-known "tired feeling," leading to a lowering of energy that is conducive to lassitude and a foe to happiness. This basic fatigability is not necessarily due to physical causes only, but is frequently related to undue anxiety, to sleeplessness because of real or fancied worries, to an unhappy choice of occupation, marital infelicity, a fear of illness, etc. With fatigue, depression more or less almost inevitably ensues. Any person may be the victim of these fatigue reactions, as exemplified by the irritability of disposition of the tired workingman, or the petulance of the convalescent from a long-standing illness. The patient is no longer filled with the joy of living and becomes self-centered, introspective, self-analytic and prone to become dulled to the sensations of excitement or amusement. He ceases to care and life becomes drab. With the feeling of depression, fear is usually associated, not the more limited physical interpretation of the word, but its broader psychological application. It may involve a fear of death, dishonor, disease, or depreciation, and colors the clinical picture with anxieties, phobias and obsessions, and very commonly a localization of mental projections in some somatic sphere of the body, the cardiovascular, the gastro-intestinal or the genito-urinary, as the case may be. It is the interpretation of these somatic symptoms which makes the diagnosis frequently difficult. One must distinguish among the patients who have almost completely psychic symptoms, those who may have coincident physical illness as well, and finally those physically afflicted who have, as a consequence of their illness or in association therewith, a superimposition of psychic elements. These differential calculations are not always easy.

MANNER AND CONDUCT

The manner and conduct of the neurotic person often leads to his recognition in the consulting room before an examination is made. In our tendency to make an indirect diagnosis of a neurosis only after a most extensive and expensive diagnostic procedure, we do not heed sufficiently the symptomatic ensemble of the neurotic, which in itself is so characteristic, as Drs. Camp and Alvarez have pointed out. In fact, so much is the nervous patient characteristic in his manner and description of symptoms that a direct diagnosis of a functional condition can as a rule be made as exactly as the diagnosis of more specific organic disease, as, for example, peptic ulcer or bronchiectasis. Parenthetically, one must state at once, however, that a direct diagnosis of a neurosis is not justifiable unless a positive psychic cause for

this diagnosis can be established. Macey and Allen, at Rochester, reported an accuracy of diagnosis in chronic nervous exhaustion on 235 patients, of 95 per cent. These patients were all studied exhaustively over a period of several years, and in the fourteen patients in whom a diagnostic error was made, three had tuberculosis, three chronic encephalitis and two hyperthyroidism—the usual sources of diagnostic conflict.

The nervous patient has no external physical characteristics. He may be of any size and often has the appearance of strength. Women are more frequently the victims of nervous symptoms than men, probably because of the stress and strain of their responsibilities either in competitive work or as housewives. The geographical limitation of their activities, the responsibility of children, household work and drudgery are frequent sources of fatigue. These patients are often accompanied in the consulting room by a relative or a friend, possibly because of a fear as to what the ultimate diagnosis may be, or the feeling that they may neglect to enumerate all the symptoms, or because of the support they need in any unusual undertaking. They are inclined to be rather verbose and meticulous in the recitation of detail of symptoms because their narration to their friends and repetition to themselves has caused them to delve into every symptomatic angle of the condition. The constant repetition of symptoms to their friends and relatives, ultimately leading to an indifference on the part of the hearers, leads the patient to an indulgence in hyperbole in his recital. He is likely to use superlatives and, to be certain that nothing is overlooked, the symptoms are frequently inscribed on a piece of paper, a character noted by Charcot, "L'homme avec le petit papier." The symptoms are likely to be numerous, but yet ill-defined and lacking the tangible characteristics of organic disease. Their fugitive and widespread character, even though a somatic projection may be noted, betrays their nature and though some descriptions may be more or less suggestive of physical ailment, there is always an aura of the unreal to the listener. The nervous patient is characteristically better when he is released from his thoughts, whether it be the diversion of pleasurable recreation, or work, provided it does not fatigue the patient too much, or a change of scene with its opportunity for fresh ideas and mental relaxation. The relationship of the symptoms to fatigue is usually quite evident and the patient oftentimes is especially aware of his symptoms during the hours of repose and when his attention is not pleasurably diverted.

"EARMARK SYMPTOMS"

The clinician learns to interpret certain symptoms as being almost earmarks. Headaches on the vertex of the scalp, band-like headaches, pressure headaches and oftentimes occipital pain are a common complaint. The all in, tired feeling, generalized aches and pains with no localized distribution and no physical evidences to serve as a cause, are often noted. The patient himself does, as a rule, freely admit a variability in disposition, alternating between extreme irritability and spells of depression, but if the admission is not made, friends and relatives usually supply the delinquency in the history. One learns to accept certain symptoms, such as a true globus hystericus, air hunger and gas belching, that are as characteristic as the hunger pain of hyperacidity or the colic of gallbladder disease. Specifically, it is the patient who has symptoms in various tracts of the body who offers the chief problem in diagnosis. These somatic symptoms are as frequently related to specific psychic causes, as the effects of specific toxins and bacteria. The patient with cardiovascular symptoms finds them frequently a cause of anxiety to him. Heart symptoms are inclined to be tumultous, since the heart is a noisy organ and palpably affects body comfort if its action is excited. The neurotic patient always exaggerates the importance and significance of heart symptoms. The cardiovascular neuroses are particularly frequent and with gastro-intestinal neuroses are the most numerous of somatic complaints. Unfortunately, many patients with heart symptoms date an aggravation of their condition to a physician's diagnosis of heart disease

erroneously made without proper substantiation for the diagnosis. An inadequate understanding of the signs of heart disease, or an uncertainty in the mind of the physician, leads to the development of a depressed state which is oftentimes very difficult to dispel. Deaths of relatives and friends with heart disease are also frequently focusing media. The symptoms complained of are usually the telltale faintness, giddiness, dizziness, palpitation, the occasional missed beats of premature contractions, or pseudocardiac pains and discomfort which correspond to no physical cardiovascular illness and have no substantiation in the physical examination.

In the respiratory apparatus patients often complain of so-called air hunger and sighing. Dr. White, of Boston, recently stated a fact, which is known to every clinician, that sighing, yawning and so-called air hunger are not indicative of cardiopulmonary disease. Patients with respiratory neuroses frequently breathe irregularly. They feel an inability to fill the chest cavity adequately with air, or at times may have a deep respiration associated with hyperventilation, sometimes leading to a true tetany, as I have observed on not infrequent occasions.

Fortunately, I do not believe there is any field of medicine in which a diagnostic accuracy is as certain as in cardiopulmonary disease. The organs adapt themselves well to all methods of physical diagnosis and the x-ray and the electrocardiogram add still further support which makes the diagnosis of cardiopulmonary disease, or its absence, as almost unequivocal.

This is not so true of the gastro-intestinal neuroses, and functional disease in this tract is therefore so frequently associated with efforts at surgical relief which do not relieve the patient, but temporarily, and which may only foster and aggravate the underlying condition.

Certain symptoms are suggestive of a gastro-intestinal neurosis, such as the aforementioned globus hystericus, anorexia nervosa, aerophagia, gas belching, postprandial vomiting without material weight loss, and the symptoms of colon irritation, but there is always the uncertainty and the possibility that there may be some associated or underlying organic condition which may be relieved surgically. When a direct diagnosis of organic or functional disease in the gastro-intestinal tract can be made, it is most helpful, but frequently the situation is so elusive as to evade the diagnosis. Fortunately, however, if the diagnosis *is* difficult or elusive, there is usually sufficient time so that a more exhaustive evaluation of the symptom complex can be made and proper treatment directed toward its relief. The speed and alacrity with which surgeons sometimes make a short cut in diagnosis have led to most egregious errors. There is no sadder picture in medicine than the oft-operated, gastro-intestinal neurotic. A perusal of the hospital records will frequently reveal instances where neurotic patients have been operated on from six to twelve times in a misdirected effort at relief.

SUMMARY

Briefly, there is truly no sphere in the human body which is not at times the point of localization of symptoms. The special sense organs, the skin, the muscles, the endocrine apparatus, the nervous system, the genito-urinary, the gastro-intestinal and the cardiovascular and pulmonary spheres all may come into the orbit of description in varying proportions and degrees.

The picture of the nervous patient with his many complaints and symptoms must not be considered as altogether doleful and dismal. Many of them seek expression in endeavors which bring out their not infrequent talents and genius. Their helter-skelter psychic processes, if they become unidirectional, frequently lead to some of the most sublime efforts in human art. Frequently the victim of this temperament is a playwright, a poet, an actor or a musician. The fact that they are neurotic in temperament accounts for many of the vagaries in their dispositions. The vivid examples of the illustrious lives and accomplishments of many historical and artistic figures are a source of inspiration to many nervous people.

Unless the neurotic is the victim of his baser emotions, he is usually a superior citizen. He is inclined to be intelligent. His habits are frequently exemplary. Some of these good habits are due to the fact that his fatigability prevents an indulgence in the excesses of vice and dissipation and the effect of carousing is not conducive to comfort. The fear of symptoms frequently precludes an indulgence in drinking and excessive smoking. His meticulousness in detail and routine make him a conscientious parent or child and a faithful workman.

The physician who attempts to treat patients with a neurosis must be primarily a good diagnostician. He must be on the alert for all possible physical situations that may simulate or mask a neurotic state. This is particularly true, as mentioned, in the less obvious psychoneurotic field and in patients in whom there is a projection into one of the somatic spheres of the body. In certain instances it is not amiss to make a direct diagnosis of a neurosis if the symptoms are sufficiently characteristic and the basis for the neurosis can be ascertained. With our present methods of physical diagnosis the diagnostician is enabled to give rather clean-cut opinions as to the degree of physical and psychic response in a given instance. Not only must the examination be made to fortify the physician's opinion, but also so the patient may realize that a most careful and detailed examination has been done and no opportunity laid for a possible error in diagnosis. The examination must be the basis for the assurance the physician extends to the patient and unless it is made emphatic enough it is likely to leave the patient still further doubt and fear as to ultimate possibilities. It is pitiable how many patients date an aggravation of their symptoms to the uncertainty or error of a previous diagnosis or hesitancy as to the presence of serious physical disorders. In view of the frequency of so-called functional disorders there may be a tendency after acquiring a certain knowledge in this field to overemphasize the significance. We must remember that as physicians it is wise to know and consider the organic situations in the body first and to understand mankind and his psychic vagaries secondarily. In this way serious mistakes may be avoided. It is usually best for the nervous patient to have but one physician if possible, or if more are necessary in the consultation, the findings should be carefully integrated by the doctor whose advice has been sought. In this way apparent or real contradictions in the diagnosis can be avoided and the advice carefully outlined.

The physician must have a sympathetic understanding of the patient's temperament and symptoms. Dr. Alvarez said one time that every physician might well be the victim of a neurosis himself so he would have a better appreciation of its clinical possibilities. The treatment of these patients must not be attempted by rough, untrained, or unintelligent hands, but by a firm and sympathetic approach which so frequently links these patients to you with hoops of steel. In the more intelligent it is usually wise to preface your treatment with an explanation to the patient as to the cause of biologic and developmental attributes. The more intelligent can understand it. With the ignorant it is frequently necessary to rely on the force of the argument rather than the logic. The patient must be given an insight into his condition and the patient's personality is frequently the most powerful aid in the treatment, adjusting it along channels which will be curative instead of leading on to destructive effort and discomfort. Since many of these nervous patients are so well endowed mentally, the physician frequently can establish a sympathetic basis with his patient on the basis of a broad culture to which these high-minded people are so frequently attracted.

Time does not permit of a further elucidation of medicinal therapy and detailed treatment, but I trust my remarks have been sufficient to lay a foundation for your personal interest in this matter and a receptivity in your practice that you will find most interesting and instructive.

Cancer Mortality in the Wisconsin General Hospital*

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PRELIMINARY STATEMENT

A SURVEY of the clinical and pathological records of all cancer patients who have come to postmortem at the Wisconsin General Hospital, Madison, during its first 11 years is herewith set forth in two parts. Part I consists of general statistical information about these patients and their cancers —number, age, sex, kind and location of cancer, metastases, etc. Part II consists of special information which, in the aggregate, indicates that 7 out of each 10 of these patients arrived here too late for any chance of cure. Since these patients have come here from all counties of the State, since they have for the most part been referred here by the local practitioners of the State, and since they have steadily increased throughout the 11 years of the hospital's existence until they have now reached formidable figures, it is hoped that a brief summary of their course here may be of general interest. It is recognized that these are mortality and not morbidity statistics, and, as such, present but a portion of the picture. Nevertheless, the portion of the picture they do present is complete and accurate for these particular patients, and not entirely without suggestion of the entire picture.

PART I

The Wisconsin General Hospital admitted its first patient on October 2, 1924, though prior to that date the Bradley unit had already treated 1,213 patients. From that day to October 31, 1935, approximately 60,200 patients have been treated here, not counting readmissions and cases in the Student Health and Outpatient Departments. Three thousand seven hundred and nine, or 6%, have been cancer patients. From all causes, 2,889 deaths have occurred during these eleven years, and 2,033 (70.3%) postmortem examinations have been performed by Dr. Bunting and his staff. The high proportion of postmortems to deaths ranks first among all hospitals of the State, within the first twenty among all hospitals of the Nation, and represents notable effort with achievement on the part of the resident staff. Of the 2,033 postmortems, 583 (28.6%) revealed cancer. By cancer, in the present paper, is meant all malignant tumors irrespective of the particular germ layer from which they may have arisen. Certain diseases about which differences of opinion may exist are not included, namely: lymphosarcoma, leukosarcoma, lymphocytic and myeloid leukaemia, multiple myeloma, and Hodgkin's disease. The large number of cancer postmortems reflects the very definite selectivity of the hospital for such patients. For comparison, the proportions at the University of Michigan Hospital[1] (30% of all necropsies) and at the Mayo Clinic[2] (31.7%) may be cited, apparently reflecting a similar selectivity. For contrast, the proportion at Cook County Hospital, Chicago[3], (14%) may be cited. Here no such selectivity exists, the patients are more of the "regular run of the mine" type, accident cases occur in greater proportion, and 34.5% of the postmortems are on individuals under age 20.

However, to emphasize the increasing importance of cancer without, as well as within, the walls of the Wisconsin General Hospital, a few comparative figures from the State Board of Health are shown in Table I. It will at once be noticed that cancer and tuberculosis have more than reversed their positions during the last 25 years. Yet at present there are 23 institutions in the State caring solely for tuberculosis patients, but none for cancer. In fact, not even a cancer clinic exists in Wisconsin, though there are approximately 200 such clinics now approved by the American College of Surgeons in operation throughout the rest of the Nation. With cancer morbidity commonly computed

* From the Department of Pathology, University of Wisconsin Medical School. Aided by a grant from the Bowman Memorial Fund for Cancer Research.

TABLE I

Comparative Data—Wisconsin State Board of Health

	1910	Rank	1935	Rank
Population of Wisconsin	2,333,860		3,032,000	
Deaths, total	28,213		30,437	
" from heart disease	2,563 (109.8)*	1	7,456 (248.1)	1
" " tuberculosis, all forms	2,404 (103.0)	2	1,063 (35.3)	8
" " cancer	1,539 (65.9)	6	3,818 (125.9)	2
Average age at death	40		55.9	

Cancer deaths: Females 1858, Males 1960

* Rate per 100,000

as three times mortality, there were approximately 16,000 cancer patients in Wisconsin last year.

I. Types of Cancers Found. In the 583 cases, 631 primary cancers were found. These have been grouped roughly under 6 classifications in Table II. The carcinomata, of pavement or glandular epithelium, comprised the vast majority as expected. Their types and varieties are too numerous to describe separately, but for the most part they are adenocarcinomata and squamous-celled epitheliomata. Hypernephromata are listed under this classification as well as most lung malignancies. The surprisingly large number of intracranial tumors will be mentioned later. These tumors, of course, represent merely a topographical, not a histological, classification and include various malignancies of the meninges, brain, pituitary, pineal body, and vessels. It might not be amiss to state here the criteria of this laboratory for cancer. A cancer is defined as a definite, atypical, invasive growth; it is not mere local hyperplasia; in the absence of metastases it must show local invasive activity. In the miscellaneous group are listed 6 tumors which did not fully meet the requirements for malignancy, but which proved fatal nevertheless: 1 papilloma causing constriction of the papilla of Vater, 2 papillomata of the larynx recurring after radium therapy, and 3 large multilocular cystadenomata of the ovary with so-called implantation metastases.

II. Location of Cancers. Also in Table II are listed the sites of origin of these 631 cancers. A combination of circumstances have combined to give first place to the brain

TABLE II

Postmortem Cancers—Wisconsin General Hospital—October, 1924—October, 1935

Classification	
1. CARCINOMATA Mostly squamous and adenocarcinoma, but all types included as transitional, embryonal, colloid, scirrhous, simplex, hypernephroma, etc.	466
2. INTRACRANIAL AND CORD Intracranial 97, cord 4, chordoma 2.	103
3. SARCOMATA	31
4. ENDOTHELIOMATA	18
5. TERATOMATA Intracranial teratomata 2, intracranial epidermoid cyst 1, mixed tumor of parotid 2, embryoma: kidney 2, testicle 2, mediastinal teratoma 1.	10
6. MISCELLANEOUS	6
	634*

Location	
1. GASTRO-INTESTINAL TRACT Oesophagus 25, stomach 75, small intestine 8, colon 39, rectum 46.	193
2. CENTRAL NERVOUS SYSTEM Intracranial 97, cord 6.	103
3. GENITO-URINARY TRACT Kidney 20†, bladder 30, prostate 40, urethra 3, testicle 2.	95
4. FEMALE Breast 23, fundus of uterus 13, cervix 12, ovary 9.	57
5. EXTERNAL SURFACES Face and skin 31, lip 14, labia 2, penis 1, groin 1.	49
6. RESPIRATORY TRACT Lung 34, larynx 9, nasopharynx 2, respiratory epithelium 2.	47
7. GLANDS AND GALL BLADDER Pancreas 23, gallbladder 10, liver 8, adrenal 3, thyroid 3.	47
8. MISCELLANEOUS Buccal cavity 14, bone 7, miscellaneous 15, undetermined origin 5.	41
	631

* 3 Intracranial tumors also included under teratomata. † Includes all hypernephromata.

with 97 tumors. Generally, of course, the stomach is accorded first place, giving rise to half of all malignancies in males and half of the remainder in females following the exclusion of breast and cervix. In this series it ranks second with 75 tumors. The entire gastro-intestinal tract, exclusive of the buccal cavity, revealed 193 tumors. In the large intestine these were 46 cancers located below the rectosigmoid junction. The appreciable number of lung cancers, 34, may come as a surprise to those who have usually associated the recent increase in this tumor with an industrial, urban population.

The relative postmortem scarcity of breast and cervix cancers by no means reflects a clinical scarcity of these cancers. Actually 250 cases of cervical malignancy and 351 cases of breast malignancy received treatment here during this period. The number of skin or external surface cancers, however, does fall below what might normally be expected. Apparently tumors of this type—particularly the common basal-celled epithelioma, of which only 6 cases were found—are not reaching this hospital, or at any rate the postmortem room, in proportion to their actual frequency.

Two major organs alone showed no cancer (i.e., malignant tumor): the heart and the spleen. In proportion to the large number of cancers of the entire gastro-intestinal tract, the relatively few cancers of the small intestine are rather striking, though entirely in accord with general statistics.

III. Metastases. Table III indicates the frequency of occurrence, the extent, and the most common and least common locations of metastases found at postmortem. A separate heading has been inserted for local activity (invasion, extension, infiltration) which, of course, can become just as decisive a factor in determining treatment and prognosis as any distant metastasis.

Of the 281 cancers without metastases, 97 are the brain tumors. Glial cells seldom, if ever, survive outside the central nervous system, and consequently metastases from brain tumors are rarely seen. Next to the regional nodes, and far in front of other organs, metastases were noted most frequently in the liver and lungs. This is not surprising in view of the fact that over one-third of the primary cancers arose in the gastro-intestinal tract or its associated glands, from which the blood drains through the portal vein to the liver and the lymph drains through the cisterna chyli and heart to the lungs. Both organs, of course, apparently provide a suitable soil for the growth of metastases. Such a soil is not provided by the lymphoid tissue of the spleen, involved the least of any organ. In fact, 3 cases were found of melanosarcoma, a tumor notorious for the range and rapidity with which it metastasizes, in which practically every organ of the body was the seat of metastases except the spleen. Unexpectedly, the important adrenal gland was involved 45 times, a frequency which may explain some of the general symptoms of cancer (lowered metabolism, weight, and blood pressure) usually attributed to the effect of a toxin. Cortical adenomata invading the capsule of the adrenal were of such common occurrence throughout the entire series of 2,033 necropsies as to be regarded as a normal occurrence.

Any prolonged observation of metastases leads inevitably to two very definite impressions, (1) their completely unpredictable behavior, and (2) the marked metaplasia or deviation they often show from the characteristic architecture of the primary lesion.

TABLE III

Metastases in 583 Cancer Postmortems

Classification	
No. of Cases with Metastases at Postmortem Examination	302
Nodes plus other organs 194, nodes only 48, other organs without nodes 48, implantation 12.	
No. of Cases without Metastases at Postmortem Examination	281
No. of these cases with severe local extension, infiltration, invasion	117
No. of these cases, therefore, without either metastases or severe local extension	164

Location	
Most common sites:	Nodes 242, liver 130, lungs 112, peritoneum 72, adrenals 45, bones 45, pleura 42.
Least common sites:	Pericardium 16, heart proper 10, spleen 8.

This series, to cite a few illustrations, contains gastro-intestinal cancers metastasizing practically everywhere except to the liver, a lung cancer metastasizing nowhere except to the prostate, oesophageal cancers of almost identical origin and structure metastasizing widely in one instance, and not metastasizing at all in the other. In one case, a focus of prostatic cancer existed so small that only a painstaking microscopic search located it, yet it had already given rise to macroscopic metastases in the lung. That they can also remain deceivingly dormant is illustrated by the following case: In a male age 51, who died of a diffuse lymphosarcoma, were found mesenteric and liver metastases of a gastric adenocarcinoma which had been removed 8 years previously.

In regard to metaplasia or deviation, this series contains such cases as an adenocarcinoma with squamous cell metastases, chondrosarcoma with spindle-cell metastases, and a teratoma in which only the epithelial element produced metastases. In general, of course, the architecture of cancer tends to undergo simplification in its metastases.

IV. Sex. There were 405 males and 178 females. This proportion is not far out of line with the 2:1 preponderance of males over females in the entire series of 2,033 necropsies. It does, however, differ from the usual statistics showing the male death rate from cancer to be smaller than the female (mainly because of cancer of the breast and cervix), though the recent 20-year cancer survey of the Metropolitan Life Insurance Company[4] indicates that these rates will shortly be reversed. It is also somewhat out of line with recent Wisconsin Board of Health statistics showing only a negligible excess of male deaths over female. It will be recalled that only 35 cancers of the breast and cervix came to postmortem from a total of 601 clinical cases. Furthermore, of the 45 skin and face cancers only 10 were females; of the 25 oesophageal cancers only 5 were females.

V. Age. The various age groups are tabulated in Table IV. The proportions shown are entirely in line with the usual statistics. Approximately one-half of all cases occur in the sixth and seventh decades. A separate tabulation of brain and cord tumors has been included because of their extraordinary tendency to occur in the earlier decades (childhood and early middle age). The youngest cases occurred between the ages of 2 and 3: an embryonic carcinoma of the kidney pelvis (female), an astroblastoma of the right cerebral hemisphere (female), and a papilloma of the larynx with recurrence (male). The oldest case was a male aged 87 with adenocarcinoma of the prostate.

TABLE IV

Age Incidence in 583 Cancer Postmortems

Years	Males	Females	Total	Brain & Cord Cases
0–10	9	4	13	9
11–20	13	5	18	13
21–30	18	13	31	15
31–40	33	17	50	22
41–50	72	41	113	26
51–60	97	38	135	12
61–70	101	47	148	6
71–80	51	13	64	0
81–90	9	0	9	0
Unstated	2	0	2	0
	405	178	583	103

VI. Particular Groups. Five groups of cancers (cerebral, rectal, pulmonary, oesophageal and multiple) have been selected for special mention in that each happens to bring into sharper focus some particular factor of the cancer problem.

A. Brain tumors. With 97 cases, this group easily takes first place in size. and seemingly substantiates the belief of Cushing and Bailey[5] that the brain is probably the most frequent site of origin of tumors. A special set of circumstances, however, combines to give it first place here: (1) Except in emergencies, only a very few Wisconsin surgeons do brain surgery; (2) a large number of persons in the proper age groups (childhood and early middle age) are annually referred to the Wisconsin General Hospital with its well-known Bradley neurologic unit because of obscure and confusing mental and nervous symptoms; (3) methods of diagnosis in difficult cases (encephalography, ventriculography) and skill in treatment (extirpation) are available here.

Like the term eczema in dermatology, the term glioma in neuro-pathology is no longer all-inclusive. In the main, the nomenclature and classification of Bailey and Cushing have been employed, and with the exception of the oligodendroglioma and ependymona, all the important varieties of brain tumors are found within this group. The glioblastomas with 26 and the astrocytomas (fibrillare 18, protoplasmaticum 4) with 22, occurred most frequently, whereas but one pinealoma was found. Tumors which histologically might properly be classed as benign are included here because of their potentially fatal location.

The particular factors brought into focus by this group are age and diagnosis. To provide background, an examination was made of the original death certificates of all persons in Wisconsin dying of brain tumor during the years 1932-33-34. There were 266 such cases, 54 of whom were treated here, 212 of whom were treated elsewhere.

1. Of the 54 cases treated here, none had reached age 60, and 87% were under age 51. The diagnoses were conclusively proved by 39 necropsies and 8 operations, leaving only 5 cases dependent solely on clinical methods for their diagnoses. The remaining 2 cases do not enter the picture because of special circumstances.

2. Of the 212 cases treated elsewhere, there were 48 cases over age 60, and only 57% were under age 51. The diagnoses were conclusively proved by only 37 nepropsies and 39 operations, leaving 136 cases dependent solely on clinical methods for their diagnosis. Suggestive of the extent of many of the operations were the descriptions "trephine," "decompression," "skull opened." Suggestive of the nature of the clinical tests confirming diagnoses were the descriptions "laboratory," "paralysis," "usual test." "Hemiplegia" was actually given as the test confirming diagnosis in 3 cases over age 75.

The conclusion one can hardly avoid is that brain tumors, throughout the State, are being overlooked in the early age groups, and are being diagnosed incorrectly in the older age groups.

B. Rectal Cancers. This group comprises 46 cases (35 males, 11 females) with an age range from 17 to 73. It is limited strictly to cancers located below the rectosigmoid junction, so that no difficulty should have been encountered in making a diagnosis by an ordinary digital or proctoscopic examination. What this group displays more tragically than any other is the fact that, whereas in some diseases an error or delay in early diagnosis and treatment may not be vital to the patient, in this disease it not infrequently deprives him of his only chance of cure. Perhaps a concrete case (No. 35:201) will make this point clearer than statistics:

In January, the patient developed diarrhea and abdominal distress, with intermittent periods of constipation. These symptoms grew progressively worse.

In April, the patient consulted the local physician and received treatment for mucous colitis. No digital examination was made.

In July and August, the treatment was changed to that for amoebic dysentery.

In September, a proctoscopic examination was finally performed, and a diagnosis of rectal polyps was made. No biopsy was taken. Following the proctoscopic, intravenous or subcutaneous therapy of some sort was started in the arm. However, by now the rectal pain had become so severe that—:

In October, the patient was referred here. On arrival, the tumor was readily palpable, 6 cm., from the sphincter, but in 5 days the patient was dead of a perforation with resultant generalized peritonitis. At postmortem, the tumor measured 9 x 7 cm.

Three factors are involved in this case: tardiness on the part of the patient in seeking medical aid, tardiness on the part of the physician in making a diagnosis, and inadequate early treatment. Of the 46 rectal cases, 36 show one or more of these factors to have been present; 5 fail to reveal whether they were present or not; and only 5 show them to have been absent.

C. Lung Cancers. This group comprises 34 cases (22 males, 12 females) with an age range from 18 to 78. It deserves particular mention because the tumors composing it oc-

curred, like brain tumors, more frequently than expected, but unlike brain tumors, without any special set of circumstances to account for such frequency. Also, they are quite definitely on the increase. Only 6 cases were found previous to 1930, representing 3.5% of the 167 cancer postmortems performed up to that year, whereas 28 cases have been found since 1930, representing 6.7% of the 416 cancer postmortems performed since then. Usually the incidence of lung cancers is computed at from 1 to 2% of all cancers, though it is not unlikely that this figure may undergo revision upward with the accumulation of more recent data. They are suspected of being more prevalent in urban, industrial, and mining areas, and heretofore have shown a decided predilection for males. However, the proportion of the sexes in this group (22 males, 12 females) is in conformity with the ratio for the entire necropsy series. In contrast, 125 cases were encountered at Cook County Hospital, Chicago, during the years, 1931 to 1934, of which only 10 were females.

Any possible relationship to such suspected etiologic factors as, for example, influenza, which tends to produce an excessive proliferative reaction on the part of the bronchial epithelium, lies of course beyond the scope of this survey. In fact, while making a microscopic search in one case for any sign of chronic irritation or of previous injury or illness which might possibly have played a part in producing the cancer, exactly the reverse of the expected process was encountered: No. 30:206 (bilateral pulmonary adenocarcinoma with metastases to nodes, pleurae, kidneys, adrenals, pancreas, and liver) contained deep scars associated with and adjacent to all cancer areas, not only in the lungs but in all organs where metastases had developed; these scars apparently represented a defensive connective tissue reaction to the cancer rather than any predisposing condition.

D. Oesophageal Cancers. This group comprises 25 cases (20 males, 5 females) ranging in age from 25 to 78. It is singled out for attention solely for the light it throws on the matter of chronic irritation. The irritation here was provided by liquor. Of the 25 patients in the group, 12 used alcohol habitually, 9 (of whom 4 were females) did not, and 4 (of whom 1 was female) failed to reveal in their records whether they did or did not. But of those who used alcohol, it was not so much the fact as the fashion in which they used it that was of interest. One patient drank a pint of alcohol mixed with white pop daily for 7 years; another, by graduated increases in his daily allowance, had built up his tolerance to the point where he could now drink 3 pints of moonshine daily; another ran a tavern for ten years during which, as he said, he "got plastered regularly"; still another had been treated here for alcoholism 4 times during the past few years.

It is worth recording that of these 12 alcoholics, none showed at postmortem a cirrhosis of the liver of the atrophic type. There were 2 cases of cirrhosis of the biliary, or obstructive type.

E. Multiple Cancers. Multiple primary cancers in the same patient proved particularly interesting, not, as one might expect, because of the supposed rarity of this condition, but because it actually occurred oftener in this series than in any series thus far reported. In 1932 Warren and Gates[6], of Harvard, published a comprehensive summary of all such cases reported up to that time, and they computed the incidence of multiple malignancy among all malignancies at 1.84% on the basis of all statistics, at 3.9 on American statistics alone, and at 3.7 on their own series of 40 cases gathered from Boston hospitals. Among our 583 cancer postmortems there were 46 cases, or 7.8%, containing two or more primary cancers.

The higher incidence found here can be attributed mainly to two circumstances: (1) These cases cover a very recent period, from 1924 to 1935, during which the recorded cancer mortality in the United States has shown a steady rise. Accordingly, any factor producing an absolute increase in single cancers is bound to produce at least an absolute increase in multiple cancers. (2) These cases are drawn from a postmortem series in which all the organs and tissues were routinely subjected to a careful microscopic examination. Such examination of current

necropsy material is apt to reveal not only an absolute but a relative increase in this condition.

A few of these cases seem sufficiently unusual to warrant brief individual mention even in this general survey. Two cases, 31:130 and 30:159, each contained three primary cancers. One case, not recorded, however, among the multiple cancer cases, contained one cancer plus nine additional benign tumors (skin 2, liver 2, uterus, ovary, kidney, thyroid, and adrenal). One case, 35:61, contained 2 true cancers plus a distinct, invasive, malignant tendency in three other organs; ironically enough, this patient died of sclerotic cardiovascular disease with a terminal bronchopneumonia.

In addition to this group of 46 true multiple cancer cases, another group of 17 cases was collected which fell short by only a narrow margin of fulfilling the requirements for this condition, namely: that each tumor must be distinct, must present in its morphology a definite histologic picture of malignancy, and must not be a metastasis. Nine of these cancer cases each contained one true cancer plus an atypical, invasive, hyperplasia of the prostatic epithelium which had not yet reached the stage where it might be considered a definite tumor. Space does not permit an individual description of the remaining members of this group.

VII. Miscellaneous. 1. Secondary lesions most frequently found at postmortem in these cases were, as one might anticipate, cardiovascular disease in its various manifestations, and bronchopneumonia. The frequency of cardiovascular disease is readily understandable when the age groups in which these cancers occurred—80% over age 40—are recalled. Bronchopneumonia hastened the exodus of 323 patients. No case of lobar pneumonia was found.

2. Complete and satisfactory as they appeared in many respects, both the clinical histories and the postmortem protocols proved inadequate for one of the original purposes of this survey: finding some relationship between the factors of heredity and irritation. Among the 583 clinical histories, the factor of heredity was present in 116 cases, absent in 251, incomplete in 147, and unelicited in 69 cases. Such figures, of course, are without significance. Among the postmortem protocols, the recognition of the cancer, its type, origin, and extent, were naturally of paramount importance, and secondary lesions in the cancerous organs, possibly indicative of underlying or previous injury, were often not recorded though noticed.

Accordingly, greater emphasis was early directed toward another purpose of the survey: the determination of the factors and estimation of the extent of the fatal tardiness found in so many cases. It is with these matters that Part II is concerned.

PART II

An impression has gradually developed, mainly from the repeated finding of identical features in their histories, that a great many of the cancer patients at the Wisconsin General Hospital, Madison, arrive here either too late to be cured, or with slight chance of success if the attempt be made. All three components of the cancer problem are involved in this impression: the patient, his physician, and the disease itself. The patient may delay in seeking medical aid, the physician may err in making the diagnosis or in instituting adequate treatment, or the disease itself, by its obscure or peculiar nature, in which absence of pain as an early symptom is important, may bring about the fatal delay. Whether or not this impression of tardiness is justified by the facts, and if so, to what extent, forms Part II of this article.

The figures furnishing the proof, or lack of proof, for such an impression are derived from the 583 postmortem cases which revealed cancer. As stated in Part I, these are mortality, not morbidity figures; they are the fatalities, not the cures; and it is recognized that they do not depict the entire cancer situation in the hospital. On the other hand, they do provide a complete and conclusive picture of these 583 patients, from their initial symptoms to the microscopic study of their tissues following postmortem. They might with some difficulty be grouped under three headings — Patient, Physician, Disease—depending on the relative degree of culpability, but they tend to overlap. Consequently they will be treated under the fol-

lowing headings: 1. The condition of the patient on entrance to this hospital; 2. His history previous to entrance here; 3. Items concerned with his referring physician; 4. Items concerned with the nature of the cancer; 5. The treatment received here.

I. The condition of the patient on entrance.

1. On their initial physical examination here — made routinely by the fourth year medical student and checked by the intern and resident—162 of these 583 patients were found to have visible or palpable metastases. It will be recalled from Part I that 302 patients were found to have metastases at postmortem, with an additional 117 patients showing sufficient local extension and invasion as to produce the same prognosis.

2. On their initial physical examination here, 338 patients were found to show constitutional or toxic signs of cancer. By these signs are meant cachexia, loss of weight, and secondary anaemia. One of these signs, at least, was recorded in every case, oftener two or all three. Weight losses not infrequently reached 75 to 100 pounds.

3. On their initial physical examination, 188 patients were found to be in an inoperable condition. Operations undertaken on an additional 190 patients revealed 60 of them to be in an inoperable condition and the remaining 130 in a condition permitting only a palliative procedure. These two groups total 378 patients.

4. On entrance here, 80 patients were so seriously ill that they died within 10 days. On 16 of them emergency operations were found necessary. The remaining 64 underwent no operative treatment whatever; in fact 26 of them arrived too moribund to permit the usual examinations to be made.

It might also be recorded here that 114 patients, in addition to the 80 mentioned above, also died within 10 days of their entrance here. These patients, however, had entered here in no immediate danger, and many other factors, such as surgery, embolism, cardiac failure, and pneumonia played a part in their deaths.

5. In 47 patients coming here primarily because of another and often more acute condition (heart, pneumonia, diabetes, tetanus, pemphigus, etc.), unsuspected cancers were found, in many instances as the result of the thorough general examination which is a routine procedure, in other instances at postmortem. Case 33:163, for example, treated by the local physician and later by a chiropractor for diabetes and rheumatism, and eventually referred here by the latter for these diseases, revealed on initial examination a cancer of the breast with metastases; previously no general examination had been made. Furthermore, 9 additional patients were actually referred here because of symptoms arising from the metastases of unsuspected cancers. Striking illustrations were furnished by patients with unsuspected lung cancers and brain metastases referred here as mental cases.

II. History of the patient previous to entrance.

1. The histories of 160 patients clearly disclosed the fact that they had been guilty of undue delay in seeking medical aid. A few typical cases will serve to illustrate what is meant: No. 32:33 continued to treat a steadily growing lesion on his lip by squeezing it and applying glycerine, iodine, etc., for eight months before consulting a physician. No. 32:36 watched a small breast nodule grow during 21 months into a large ulcerating mass with metastases before consulting a physician. No. 33:222 noticed a lump in the epigastrium and distress upon eating five and one-half months before visiting a physician. These are by no means extreme cases, but merely cases typical of the entire group.

In large measure, two factors share responsibility for such tardiness. First is the low level of formal education. "Went through eighth grade," and "stopped school at age 14" are commonplace notations in the histories. It is recognized of course that formal education does not necessarily produce intelligence. Nevertheless, though the cancer does not know whether the person who has it is educated or not, education should cause the person to wonder, at least, if he has cancer. Most of the male patients are listed as farmers and laborers, providing

possibly still another index of education. Of the 417 patients over age 45, 107 emigrated here from foreign countries. This last figure would be higher but for the fact that 58 additional patients failed to mention their place of birth. Finally, it is of interest to learn from the latest figures of the Wisconsin Board of Vocational Education that in our own State there are still 44,232 illiterates (who cannot write in *any* language).

The second reason is fear, or at least an unwillingness to face a serious possibility.

2. Merely as a rough index of the general tardiness, a record was kept in each of the 583 cases of the time elapsing between the appearance of the initial symptoms and the entrance of the patient here. Ninety-two patients arrived here within 3 months of the onset, 101 from 3 to 6 months, 79 from 6 to 9 months, 45 from 9 to 12 months, and 198 arrived one year or later following onset. In 68 histories this information was not available. An attempt to keep a record of the time elapsing between the initial symptoms and the first medical consultation was abandoned because so many histories proved deficient in this information.

III. Items concerned with the referring physician.

1. *Diagnoses.* Of the total of 583, only 186 patients were referred here with the correct diagnosis. Even this figure is more liberal than the facts warrant because of the following adjustments. First, credit has always been given to the referring physician even when he left unanswered the question of diagnosis, provided: (1) his other remarks indicated that he suspected cancer, or (2) if the signs or symptoms he recorded were suggestive of cancer, or (3) if he deliberately left the question unanswered so as to avoid jeopardizing his patient's chance of obtaining the consent of the judge for commitment here, or merely to prevent the patient from discovering his true condition. Secondly, he has been given credit if he diagnosed cancer but missed the location (as cancer of stomach for cancer of pancreas or larynx), or simply made no mention of location.

Of the remaining 397 cases, 266 were diagnosed here by ordinary clinical methods available to every general practitioner (history, physical examination, laboratory, proctoscope). Twenty-one cases were diagnosed by biopsy and 3 cases by dilatation and curettage. These groups total 290 cases. Of the remaining cases, 15 were diagnosed by methods not available to the general practitioner (oesophagoscope, cystoscope) and the rest at operation or postmortem examination. In connection with the last method, it will be recalled that a number of patients died too soon to permit any other opportunity.

2. *Biopsies.* Before entrance here only 15 biopsies had been made. Following entrance, 97 biopsies were taken either to make or confirm a clinical diagnosis. Biopsies taken here which lay beyond the scope of general practice (oesophagus, larynx, prostate) were not included, otherwise the contrast would appear even more striking. The term biopsy as used in this sense naturally does not include the examination of tissue removed at operations.

3. *Diagnostic x-ray.* The cases most suitable for furnishing a comparison in the employment of this method are those with cancer of the gastro-intestinal tract (excluding the rectum). There were 147 such cases. The histories of 26 of them disclosed a gastro-intestinal series prior to entrance, and the histories of an additional 19 failed to disclose whether such a series had been taken or not. Following entrance, 112 patients received a gastro-intestinal series here.

4. *Undue tardiness* on the part of the local physician in making the diagnosis of cancer was revealed in the histories of 266 patients. Typical illustration of what is meant is furnished by the palpable rectal cancers diagnosed as mucous colitis, the lung and kidney cancers with brain metastases diagnosed as epilepsy or just "faulty metabolism," or the oesophageal cancers diagnosed as alcoholic cirrhosis.

5. *Inadequate early treatment,* regardless of whether a correct diagnosis had been made or not, was revealed in the histories of 248 patients. Typical illustrations of what is meant are afforded by the extraction of teeth and refraction of eyes for the headache of brain tumors, tonsillectomy for the cervical

metastases of abdominal tumors, the therapy of a faith healer for a face cancer, anti-tuberculosis therapy in a state sanatorium until the metastasis of the lung cancer became visible.

IV. Items concerned with the nature of the disease.

1. This hospital exerts a definite selectivity not only for cancer cases in general but for the more obscure types of cancer in particular. Of the 631 cancers found in these 583 cases, only 202 were readily visible or palpable (skin, breast, buccal cavity, cervix, prostate). The other 429 were internal and invisible (including urethra, oesophagus, sinuses, brain). Many of them, of course, presented a confusing symtomatology. Attention might be called here to the fact that the number of external cancers (202) exceeds the number of cases in which the referring physician made the diagnosis (186).

From the preponderance of internal over external cancers, it appears not unreasonable to assume that the latter type is, with increasing frequency, reaching the surgeon in time to avoid the pathologist.

2. In a number of cases, the earliest symptoms have been those of simple conditions which the patient has experienced before and from which he has recovered, as for instance, an initial diarrhea in rectal cancer. Naturally he fails to appreciate the seriousness of his current attack until its persistence compels him to do so; and then it is often too late.

V. Treatment received here.

1. *Surgery.* Operations were undertaken on 310 of the 583 patients. In only 87 cases, however, did the operation consist of a definite attempt to cure (resection, extirpation, etc.). In 190 cases, the operations consisted of exploratory or palliative procedures. There were 17 emergency operations, and 16 ventriculograms or encephalograms not followed by additional surgery. Because of special circumstances 4 operations do not enter these tabulations. It might be mentioned that only the significant operation in each case has been tabulated.

2. *Radium and x-ray.* Apart from the cases where they were employed in conjunction with surgery, radium or x-ray, or both, were employed in a definite attempt to cure in 32 cases. They were employed as palliative measures in 55 additional cases. It might be noted at this point that 180 patients received no surgery, radium, or x-ray therapy of any sort, their treatment here being confined entirely to medical palliation.

Conclusion.

In determining the extent to which the impression of tardiness mentioned earlier is justified, the following summary can be offered:

1. Of the 583 cancer patients coming to postmortem at the Wisconsin General Hospital during its first eleven years in service, 404 patients, roughly 7 out of each 10, disclosed the presence of one, two, or all three of the following factors: (1) tardiness in seeking aid, (2) tardiness in making the correct diagnosis, (3) inadequate early treatment. But for the fact that in approximately 50 of the early histories these factors were not clearly recorded and consequently could not be justly tabulated, this figure would be even larger.

Accountability for such tardiness involved the patient in 160 cases, the local physician in 266 cases.

2. Of these 583 cancer patients, a definite attempt to cure was possible in only 119 cases (surgery 87, radium and x-ray 32), roughly 2 out of each 10.

3. To insure a fair evaluation of the above findings, certain qualifying circumstances, mentioned at various places throughout the article, must be borne in mind, namely: (1) that this is a mortality, not a morbidity series; (2) that this hospital attracts obscure types of cancer out of proportion to their usual occurrence (all five groups singled out for individual comment in Part I — brain, rectum, oesophagus, lung, and multiple cancers—were found to occur oftener here than in the usual statistics); (3) that the thor-

ough general physical examination regardless of nature of illness, and the thorough microscopic examination of all organs and tissues at postmortem regardless of cause of death, uncover unsuspected cancers which might possibly otherwise escape detection.

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Carcinoma of the Lung and Its Differential Diagnosis*

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PRIMARY carcinoma of the lung is not a rare disease, but constitutes about six to eight per cent of all carcinomas. In frequency it ranks next to gastro-intestinal malignancy. Twenty years ago only five per cent of the cases were diagnosed clinically, today about fifty per cent are recognized. After a ten-year intensive study of this subject the writer is convinced that at least ninety per cent of the cases can be diagnosed during life. The clinician who is familiar with the different manifestations of this disease can recognize most cases from the history, physical examination and x-ray study. In some cases a bronchoscopic examination, lipiodol injection, or artificial pneumothorax will be necessary. The diagnosis can be confirmed by a biopsy of the frequently enlarged cervical or axillary lymph nodes, microscopic examination of pleural exudates or pieces of tissue in the sputum, or removal of a piece of tissue from a bronchus.

During a four-year period, from 1930 to 1934, we have studied 135 cases of primary carcinoma of the lung. Most of these patients were seen at the Cook County Hospital and in private practice. Dr. David H. Wagner, my resident physician, assisted me in the collection of the data. Seventy-four were confirmed by necropsy, 26 by biopsy, 13 by bronchoscopy, and 22 were diagnosed from the characteristic clinical and x-ray findings. From this study we can say that cancer of the lung is one of the most important pulmonary diseases in people past forty years of age. It must always be considered in dealing with cases of lung abscess, bronchiectasis, empyema, hemorrhagic pleurisy, chronic pneumonia, and pulmonary infiltrations.

Pain in the chest, or in other parts of the body, associated with a cough and bloody expectoration, and sooner or later accompanied by dyspnoea, are the cardinal symptoms. An area of lung infiltration, enlarged supraclavicular or axillary lymph nodes, a hemorrhagic pleural effusion, paralysis of a diaphragm, or evidence of bone, brain, liver, or other metastases make the diagnosis quite certain. Tuberculosis is usually easily excluded, but may occasionally accompany lung carcinoma. The x-ray findings in lung cancer are diagnostic in a high percentage of cases.

AGE, SEX AND RACE

Among our 135 cases we find that 43.7 per cent occurred in the 51 to 60 year group, and 72 per cent in the 41 to 60 year group. Table 1 gives the number of cases in each 10-year group:

TABLE I

Age	*Cases*	*Per Cent*
21–30	3	2.2
31–40	9	6.6
41–50	39	29.0
51–60	59	43.7
61–70	22	16.3
71–80	3	2.2

* Presented before the 94th Anniversary Meeting, State Medical Society of Wisconsin, Milwaukee, September 18, 1935.

The cases were more frequent among whites than among negroes. Although about 30 per cent of the patients at the Cook County Hospital are negroes only 9 per cent of the cases occurred among them. There were 12 negroes and 123 whites. The number of cases in men is much higher than in women. There were 125 males and only 10 females. This suggests the possibility of tobacco smoke as an important etiologic factor.

PATHOLOGY

Of the 135 cases 82 or 60 per cent occurred in the right lung and 53 or 40 per cent in the left lung. The largest number of cases occurred in the right upper lobe, with about equal numbers in the left upper and both lower lobes. Only one case was seen in the right middle lobe.

All carcinomas of the lung are bronchogenic in origin, that is, originate in the epithelial cells lining the bronchi or small bronchioles. There can be no carcinoma primary in the alveoli as they have no epithelial lining. The tumors arise from the undifferentiated basal cell layers of epithelium, multipotential cells which may reproduce columnar epithelial structures, squamous epithelium or undifferentiated round or spindle cells. Some may arise from the mucus-secreting glands of the bronchi. We, therefore, find three types of carcinoma, namely, (1) adenocarcinoma, (2) squamous-celled, (3) undifferentiated round or spindle-celled. In our 74 necropsied cases 21 cases or 28 per cent were adenocarcinomas, 18 or 24 per cent squamous-celled, and 31 or 41 per cent undifferentiated round or spindle-celled.

The *round and spindle cell carcinomas* are the ones which were in the past often erroneously diagnosed as sarcomas. All of this group presented metastases at autopsy. All showed involvement of the bronchial lymph nodes. The abdominal organs were involved in fifty per cent, the brain in 16 per cent and the bones in 21 per cent of cases.

The *adenocarcinomas* are almost as malignant as the round cell form. All of this group had metastases at necropsy. Bone metastases were most frequent, with 48 per cent of the cases showing bone involvement.

The *squamous cell carcinoma* is less malignant than the other two types, and offers the best prognosis for surgical removal. Yet 6 of 18 cases had brain metastases. Metastases in the liver, kidneys and adrenals were only one-third as frequent as in the other types.

Metastases were found in the 74 necropsy cases as shown in Table 2.

TABLE 2

METASTASES IN 74 CASES OF LUNG CARCINOMA

	Cases	*Per Cent*
Tracheobronchial, bronchial nodes	65	88
Cervical nodes	40	54
Axillary nodes	20	27
Abdominal lymph nodes	28	38
Pleura	33	45
Adrenals	32	43
Liver	29	40
Kidneys	24	32
Lungs	22	30
Bones	21	28
Central nervous system	18	24
Pancreas	11	15
Heart and pericardium	10	14
Intestinal tract	8	11

Besides the above there were occasional metastases in almost every organ of the body. Of the 74 cases only one had no metastases at autopsy.

Associated pathologic lung findings are very frequent. Lobar and bronchopneumonia were found in 28 per cent, chronic pneumonia in 20 per cent, and bronchiectases in 43 per cent. Abscess or gangrene developed in 20 per cent. There were 47 per cent of cases with pleural involvement. Atelectasis of a lobe or lung was often due to bronchus stenosis. Active pulmonary tuberculosis was found in only three cases, and is certainly not a factor in the causation of lung cancer.

SYMPTOMS

The failure to diagnose lung carcinoma more frequently can be attributed in part to the great variation in the symptoms of this disease. These symptoms depend upon the location and size of the primary tumor, the secondary changes which so often occur, and the location of metastases. In a small group the primary tumor produces no lung symp-

toms. Some of these cases can be diagnosed by bronchoscopy if the lesion is in a large bronchus, but this is seldom done when there are no pulmonary symptoms. This occult type causes symptoms when lymphogenic or hematogenic metastases occur.

In approximately half of the cases of primary lung cancer the signs and symptoms are predominantly outside the lungs. Of our series of 135 cases 69 patients or 51 per cent had chiefly extra-pulmonary findings. Only 66 patients or 49 per cent had findings which were largely thoracic. We have divided the cases into the clinical types shown in Table 3.

TABLE 3

CLINICAL TYPES OF LUNG CARCINOMA

	Cases	*Per Cent*
Pulmonary	66	49
Osseous	21	16
Cerebral	13	10
Cardiac	12	9
Gastro-intestinal	11	8
Lymphoglandular	9	6
Hepatic	3	2

In the *pulmonary type* the symptoms are usually a cough, hemoptysis, pain in the chest, and dyspnoea. These symptoms in a person past the age of 40 years are very suggestive of carcinoma of the lung. The average duration of symptoms in our cases was eight months. In a few cases the symptoms dated back three years or longer, in some cases only a few weeks. The cough is usually progressive, and fails to respond to rest or medication. It is often associated with an asthmatoid wheeze due to bronchial stenosis or pressure on the trachea. The sputum often becomes blood-streaked, or there may be a marked hemoptysis. Bloody expectoration in the absence of tuberculosis or cardiac disease is very suggestive of lung cancer. We have seen several cases with fatal hemorrhage. The sputum should always be carefully examined for tissue fragments. Fixation and sectioning of the particles may make the diagnosis certain. Dyspnoea may be an early or a late symptom. It may be due to stenosis of a bronchus by the tumor or compression of the trachea by lymph node metastases. Often there is an extensive pleural effusion with lung compression. There may be compression of the superior vena cava or pulmonary vessels, or a pericarditis. Acute or chronic pneumonia is often a contributing cause.

Pain is the second most frequent symptom. It is more continuous than in any other chest disease, except possibly aortic aneurysm with bone destruction. The pain may be sharp and lancinating. It is usually due to involvement of the pleura, intercostal nerves, brachial plexus, or bony structures. Metastases in the spine and ribs are very frequent. The pain is often aggravated or induced by percussion. Thoracic pain occurred in 79 cases or 58 per cent, and 58 patients had extra-thoracic pain. Ninety-nine of the 135 patients suffered severe pain.

The general effects of lung carcinoma are mainly loss of weight, fever, weakness, night sweats, and fatigue. A leukocytosis is common. Clubbed fingers occur in about 15 per cent of the cases. The symptoms due to metastases are of great importance, as we shall see from a brief discussion of the different clinical types.

The *osseous type* is one of the most frequent encountered by us. Of 35 cases out of a total of 135 with bone metastases we have placed 21 cases in this group. The first complaint of the patient is sharp severe pain in the chest wall, often limited to certain ribs, or in the spine, skull, pelvic bones or an extremity. The patient may enter with a pathologic fracture, as did three of our cases. A careful history usually but not always elicits the presence of a cough or hemoptysis. X-ray films of the painful parts usually present the findings of osteolytic or osteoclastic metastases. There are irregular, small or large areas of bone destruction. They were found most often in the ribs, skull, pelvic bones, sternum, ends of the long bones, scapula and clavicle. Often large, soft tumors develop, which may be mistaken for a bone sarcoma. In all cases of osteolytic bone metastases, especially in male adults, a lung carcinoma must be considered as the primary site. In our experience lung cancer is one of the most frequent causes of osteolytic bone metastases.

In the differential diagnosis of bone metastases, breast, thyroid, and kidney carcinomas, melanoblastoma, ovarian carcinoma, and any other malignancy must be considered. We have recently seen two cases of stomach carcinoma with bone metastases in the ribs, clavicle, and spine.

The *cerebral type* is next in frequency. Of 135 patients twenty presented findings in the central nervous system. Of these we have included 13 cases in this group because of the outstanding cerebral findings. Five of the patients were admitted to the neurologic service. Some were diagnosed as cerebrospinal lues, meningitis, brain abscess, encephalitis, cerebral hemorrhage, or brain tumor. When a person of middle age has an abrupt onset of signs and symptoms of rapidly developing intracranial lesion a metastatic lung carcinoma should be considered, and the lungs carefully examined. Any part of the brain or cord may be affected. The cranial nerve centers are frequently involved, or there is a hemiplegia. Headache is common. The patient may develop coma. A careful neurologic examination should be made in every patient with lung cancer. Brain metastases were found in 18 of 74 necropsied cases, or 24 per cent. Not all of these presented clinical symptoms.

The *cardiac type* includes 12 cases in which the heart signs and symptoms were outstanding, and the lung findings less evident. The heart, pericardium, and great vessels are frequently involved by the tumor. Cancer of the right upper lobe often compresses or invades the superior vena cava, with symptoms like those of a mediastinal tumor. The clinical picture of a right heart enlargement or decompensation has occurred in many cases. In two cases the pulmonary artery was surrounded and compressed, in seven cases the pulmonary veins were involved. The extensive lymphangitis carcinomatosa may cause narrowing of many smaller pulmonary vessels. Infiltration of the pericardium or myocardium may cause marked circulatory disturbance. In ten of our cases the heart and pericardium were found invaded at autopsy. Heart symptoms are often due to the pulmonary atelectasis, or associated acute or chronic pneumonia or abscess.

The *gastro-intestinal type* includes 11 cases. The chief cause of the gastro-intestinal signs and symptoms is the presence of abdominal metastases. Thirty-eight per cent of our necropsy cases revealed metastases in the abdominal lymph nodes. These may form huge masses in the periaortic, peripancreatic, perigastric, periportal, and retroperitoneal nodes. The liver was enlarged in 24 per cent of all our cases, and showed metastases in 40 per cent of the necropsy cases. In several cases a large nodular epigastric tumor was mistaken for a carcinoma of the stomach or intestines. Even the x-ray findings may be misleading. We have seen filling-defects due to perigastric metastases with compression or infiltration of the stomach wall. In two cases the metastases led to pyloric obstruction. In three cases gastric or duodenal hemorrhage followed compression with secondary ulceration. With jaundice, which occurred in 6 cases, a carcinoma of the pancreas may be suspected. Nine of our patients complained of difficulty in swallowing. In all I was able to demonstrate compression of the esophagus by gland metastases on x-ray examination with thick barium paste.

The *lymphoglandular* type is due to extensive metastases in the supraclavicular, cervical, or axillary lymph nodes as well as in the bronchopulmonary, bronchial, and tracheobronchial nodes. One of our most valuable aids in the diagnosis of primary lung cancer has been a careful examination for enlarged cervical or axillary nodes. A large hard node is frequently found above the clavicle or behind the head of the clavicle. The diseases which cause the greatest difficulty in differential diagnosis are Hodgkin's disease and lymphosarcoma. When a node is accessible a biopsy should always be done. In nine of our cases large hard cervical or axillary gland tumors were the outstanding findings. In two cases it was difficult to distinguish the gland masses from a primary thyroid carcinoma, until the biopsy and lung findings made the diagnosis of lung cancer. Small carcinomas of the piriform sinus, naso-

pharynx, or accessory nasal sinuses may produce large cervical metastases, and these must be excluded in a differential diagnosis.

The last or *hepatic type* occurs when there are extensive liver metastases with marked enlargement of the liver and jaundice. The jaundice is usually due to compression of the larger bile ducts or the common duct. Liver enlargement was found in 24 per cent of all our 135 cases. In several cases the liver was tremendously enlarged, and in six cases there was marked jaundice.

LUNG FINDINGS

The physical findings vary greatly with the size and location of the tumor. In about 15 per cent of the cases there are no positive lung findings. These are the early cases who present themselves because of bloody expectoration, pain in the chest, or cough. Until the tumor produces stenosis of a bronchus with atelectasis, or involves the peripheral lung tissue, or causes a pleurisy, the percussion and auscultation may reveal nothing. However, the x-ray findings may be diagnostic even in the early stages.

The endobronchial form produces stenosis of a bronchus with atelectasis. There is dullness with suppressed or absent breath sounds. There is retraction of the chest wall with reduced mobility. The diaphragm is often elevated and the heart displaced toward the affected side. The absence of adventitious sounds speaks against tuberculosis. With partial bronchial occlusion there may be the characteristic "cornage" breath sounds, a peculiar type of tubular breathing.

The hilar or central form is one of the most frequent types, because many of the carcinomas originate in a main bronchus. There is often dullness or flatness on percussion to the right of the sternum or to the left of the heart. I have often found paravertebral dullness at the level of the second to fourth dorsal spines. Hard, enlarged supraclavicular or axillary lymph nodes point to lung carcinoma. In the nodular type of tumor the findings are those of a mediastinal tumor with dullness and pressure symptoms. There is often an asthmatoid wheeze, brassy cough, distention of the veins of the head and neck, and cyanosis. When flatness extends to the infraclavicular region with suppressed or absent breath sounds the diagnosis is easy. A high diaphragm with paradoxic movement, a Horner syndrome, paralysis of a vocal cord, or dysphagia, often occur and assist in making the correct diagnosis. The abdomen should always be carefully examined for liver enlargement or tumor masses.

The lobar form occurs most often in the upper lobes, where the diagnosis is usually easy to make. There is a peculiar flatness with increased resistance on percussion. The flatness often has a convex lower border. It extends beyond the sternum to the opposite side due to mediastinal infiltration. Over the area of flatness the breath sounds are weak or absent and the auscultatory findings are minimal. Cornage breath sounds, flatness, bloody sputum, and enlarged supraclavicular nodes are the chief characteristics of this type. In the late stage the entire lung may be involved. Or, an extensive hemorrhagic pleural effusion may develop, with little or no cardiac displacement. Aspiration and artificial pneumothorax may be necessary to reveal the underlying lung tumor. The fluid should always be carefully examined for tumor cells. A hemorrhagic pleural effusion in an adult with pain in the chest, cough and bloody expectoration, speaks for lung carcinoma with extension to the pleura.

ROENTGEN FINDINGS

In the diagnosis of primary carcinoma of the lung the roentgen ray is an indispensable aid. Not only will it confirm the clinical diagnosis in a high percentage of cases, but it will also reveal certain cases which cannot be diagnosed in any other way. After a wide experience with numerous postmortem studies, I am prepared to state that about two-thirds of the cases can be diagnosed from the x-ray study alone. In the other one-third a pleural effusion or empyema, pneumonia or lung abscess, marked pleural thickening, or involvement of an entire lung may make the x-ray diagnosis difficult or impossible. Even in the latter group other

x-ray findings may help to make the diagnosis. An enlargement, distortion, and increased density of the hilum shadow on the opposite side, bone metastases, paralysis of a diaphragm, a massive effusion with little or no cardiac displacement, or lung metastases may point the way. In these difficult cases bronchoscopy or bronchography may settle the diagnosis at once.

The hilar type leads to an enlarged dense hilar shadow. It may be composed of the nodular tumor, bronchial gland metastases, and lymphangitis carcinomatosa. A branching radiary shadow invades the lung field with increase in the size, density and number of the lung markings. The picture is so characteristic that the diagnosis is usually easy. In some cases Hodgkin's disease or lymphosarcoma may produce a similar picture, and then a biopsy of a lymph node or piece of tissue from a bronchus may be necessary to establish the correct diagnosis.

The lobar type produces a very dense shadow, often with a sharp outline at an interlobar fissure due to atelectatic lung tissue. In the upper lobe the convexity of the lower border usually distinguishes carcinoma from tuberculosis or pneumonia. The hilum markings are enlarged, sometimes with nodular tumor shadows. Soon the lung shadow invades the adjacent lobe, with an unsharp border of infiltrating tumor tissue. The diaphragm may stand high due to involvement of the phrenic nerve. Lipiodol often reveals a bronchus stenosis. When a pleural effusion develops there is often little cardiac displacement due to fixation by the tumor infiltration. Bronchiectases or abscess are frequent occurrences in the tumor or surrounding lung tissue. A long exposure of the affected side is often necessary to reveal them on the films. The shadows are often larger than the tumor due to atelectasis and acute or chronic pneumonia. The tumors are usually radioresistant.

Metastatic lung tumors are easily differentiated from primary lung carcinoma. They grow by expansion and are usually sharply defined, round or oval. They are often multiple. Echinococcus cyst is also as a rule spherical and sharply outlined, and may show calcification in the wall of the cyst. Hodgkin's disease and lymphosarcoma often involve the mediastinum with infiltration of the lung parenchyma. A biopsy may be necessary to distinguish these diseases. Actinomycosis may produce similar physical and x-ray findings but is easily diagnosed by finding the ray fungus in the sputum. The same is true of other mycotic lung infections. An advanced pneumoconiosis may resemble a primary lung carcinoma roentgenologically, but the history, frequent presence of tuberculosis in the advanced stage, and absence of evidences of malignancy enable one to distinguish this disease from a lung carcinoma with lymphangitis.

Table 4 gives the important clinical findings in the series of 135 cases of primary carcinoma of the lung:

TABLE 4

FINDINGS IN 135 CASES OF PRIMARY LUNG CARCINOMA

	Cases	*Per Cent*
Positive physical findings in the chest	110	82
Cough	106	80
Pain (thoracic, extra-thoracic)	99	73
Loss of weight (10 lbs. or more)	86	64
Dyspnoea	70	52
Hemoptysis	58	43
Purulent sputum	19	14
Cervical adenopathy	53	40
Axillary adenopathy	37	28
Leukocytosis (10,000 or more)	37	28
Temperature (1° F. or more)	37	28
Demonstrable bone metastases	35	26
Liver enlargement	32	24
Cyanosis	28	21
Clubbed fingers	21	15
Dilated veins of neck, chest	21	15
Paralysis of diaphragm	20	15
Central nervous system involvement	20	15
Hoarseness	18	13
Asthmatoid wheeze	13	10
Recurrent laryngeal nerve paralysis	10	8
Dysphagia	9	7
Horner syndrome	8	6
Skin metastases	7	5
Subleukemic blood picture	6	4
Jaundice	6	4
Anisocoria	4	3

You cannot afford to miss the 95th Anniversary Meeting of the State Medical Society. *See pages 737 to 752.*

Syphilis and Carcinoma of the Stomach; Differential Diagnosis in Patients With Systemic Syphilis; Case Reports

By MARIE L. CARNS, M. D.*
Madison

IF A patient with systemic syphilis has a gastric lesion similar to those illustrated in the two cases to be presented, the differential diagnosis lies between gastric carcinoma and gastric syphilis. The unusual importance of the correct diagnosis depends, of course, upon the fact that the treatment of the two conditions is entirely different. If carcinoma is present and roentgen studies indicate that the lesion is operable, surgery at the earliest possible date is indicated. If the lesion is syphilitic, it is unfortunate to subject the patient to laparotomy. Especially if the lesion is not recognized as syphilis by the surgeon and is excised, subsequent extension of the syphilitic process and the resulting increased gastric deformity are unfavorable results. It is important that the clinician have these possibilities in mind, and that he weigh the evidence carefully before deciding upon the therapy to be advised.

Case I. Mrs. C. P., a housewife, fifty years of age, of Danish extraction, was admitted to the Wisconsin General Hospital on October 15, 1932. Her chief complaint was pain in the stomach. She dated the onset to about June 1, 1932. The pain, which was predominantly dull in character, began about five or ten minutes after eating and was followed by a sensation of "bloating." There was occasional vomiting which gave relief. At the onset the pain occurred only every three or four days, but at the time of admission was occurring every day and usually lasting about one hour. Relief was obtained by the taking of soda and by belching. At times the pain was sharp and radiated to the lower lumbar region and also into the chest along the left sternal border. The patient had been confined to bed for the past six weeks.

Significant symptoms by systems included palpitation and dyspnoea on moderate exertion for the past four years, weakness for the past six weeks, and a weight loss of twenty-seven pounds in the last three or four months. The past medical history was irrelevant and the patient definitely denied ever having had any of the rheumatic group of diseases or venereal disease. The only points of interest in the social history were that she had had no miscarriages or still births and had two children living and well. The family history was of possible interest only in that her mother had died at the age of thirty-five of "apoplexy" and that there was no known carcinoma in the family.

Physical examination revealed a pyknic type of woman who, despite her recent weight loss, was still obese. She appeared to be in no pain. Significant findings included a saddle-shaped nose, a perforation of the nasal septum involving the bony portion, and dense scar tissue over the entire posterior pharyngeal wall leaving only a slit-like opening into the nasopharynx. The heart showed moderate enlargement to the left and also some increase in diameter to the right with the physical signs characteristic of mitral stenosis and regurgitation. In the epigastrium there was an indefinitely palpable tender mass about 5 cm. in diameter which moved with respiration. There were no abnormal neurological findings. The fundi were considered to be normal and this impression was confirmed by an ophthalmologist.

Before any of the results of laboratory tests were known the clinical opinions were that tertiary syphilis was present and that the gastric lesion represented either syphilis or carcinoma. Secondary impressions included rheumatic heart disease with mitral stenosis and regurgitation and secondary anemia.

Significant laboratory findings included a blood Wassermann reaction which was 4+ on three occasions, negative spinal fluid, hemoglobin averaging about 50% with 3,500,000 to 4,000,000 red blood cells, normal total leukocytes and differential, and a gastric analysis which showed free acid 18°, total acid 32°, lactic acid negative and occult blood positive. Orthodiascopic studies confirmed the clinical cardiac findings. The electrocardiogram showed QRS low and slurred in all leads, low voltage and the ST segment slightly depressed in lead I. A gastrointestinal series performed by Dr. L. W. Paul showed a narrowing of the immediate prepyloric area most marked on the greater curvature but with superficial irregularity on the lesser curvature for a distance of 4 cm. and this deformity was constant. In six hours a small residue remained in the stomach, probably about 10%. Dr. Paul's impression was that the described deformity of the terminal antrum had the appearance of carcinoma. However, upon discussion of the positive blood Wassermann reaction he stated that since syphilis of the stomach may exactly simulate carcinoma roentgenologically, absolute differentiation could not

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be made without clinical aid or observation following antisyphilitic therapy.

Because this patient was considered a poor surgical risk from the cardiac standpoint and because of the extent of the gastric lesion, she was placed on antisyphilitic therapy. A consultant advised mapharsen. One dose of 40 mg. was given intravenously and one-half hour later the patient had an attack of dyspnoea and palpitation. Symptomatic treatment relieved the attack within a few hours. However, following this untoward reaction, mixed treatment with potassium iodide in ascending doses and intramuscular mercury salicylate was decided upon. During her hospitalization the patient had a distinct diminution in her gastric symptoms. It was impossible definitely to correlate the gastric improvement with therapy, however, as she was relieved during the first days of her hospitalization with bed rest and soft diet before antisyphilitic medication was instituted. She continued to vomit at intervals but quite infrequently. Her nutrition remained excellent. In fact, she gained weight during the first week but later weights were not recorded. A further gastric study by x-ray about six weeks later showed "no distinct change although the margins appear somewhat smoother than in the

Case 1. Oct. 18, 1932

previous study." The gastric residue remained about 10%.

Because of the cardiac symptoms mentioned above the patient was digitalized and then kept on a maintenance dosage. On December 30, 1932, she developed symptoms and signs of coronary occlusion and died the following day.

Autopsy was performed. The stomach showed a crater-like lesion about 6 cm. in diameter with raised nodular edges on the lesser curvature of the prepyloric region. The lesion almost encircled the lumen of the pyloric portion of the stomach. The crater of the lesion was flat, slightly congested and somewhat fibrous rather than ulcerated. The remainder of the gastric mucosa was essentially normal. The cut surface of the tumor was firm, yellowish-grey and tended to be somewhat scirrhous. There were two lymph nodes about 1.5 cm. in diameter in the mesentery of the stomach, the cut surfaces of which were grey, resembling the tumor. The anatomical diagnoses were adenocarcinoma of the stomach with metastases; tertiary syphilis; rheumatic endocarditis and myocarditis; coronary, aortic, pulmonary and renal arteriosclerosis. Microscopic examination of the gastric lesion confirmed the diagnosis of adenocarcinoma.

In retrospect it is interesting to note in this case that the patient continued to improve symtomatically in the period of about two months during which she was on antisyphilitic therapy. Transient improvement of a nonspecific nature which the patient with syphilis and gastric carcinoma may derive from arsenic, bismuth or mercury, has been repeatedly noted.[1] To x-ray, however, the condition remained essentially unchanged. In O'Leary's[2] report from the Mayo Clinic he states that they consider the therapeutic test of antisyphilitic treatment as successful only after a subsequent interval of freedom for two years. Obviously, the time during which this patient was under observation was too short for the formulation of definite conclusions as to the efficacy of therapy.

Case II. Mrs. B. F., a housewife, 32 years of age, of German and Irish extraction, was first admitted to the Wisconsin General Hospital on March 7, 1933. Her chief complaint was pain in the abdomen. For the past three years she had had attacks of pain in the right upper quadrant. The pain radiated to the right scapula. For the past three or four weeks she had had pain almost every other day. She had recently had occasional nausea and vomiting. She had limited her diet to bread, milk and cereal in an effort to obtain relief. Constipation of rather marked degree had been present for the past four or five years. After eating the stomach felt "bloated" and she had experienced a great deal of belching. Her appetite had become very poor and she had lost 84 pounds in weight (from 180 to 96 pounds), in the past two years. She had lost 16 pounds in the past three weeks. In addition to the right upper quadrant pain, she complained of epigastric pain which was most marked about two or three hours after meals. Food and soda gave some relief. No further pertinent positive symptoms were elicited on direct questioning. The stools had never appeared tarry nor contained any fresh blood.

She had had a large number of previous illnesses, including scarlet fever, diphtheria, pneumonia, influenza and typhoid. Social history was of interest in that she had had three children, two of whom were living and well. The third had died with pneumonia. She had had one questionable miscarriage. She denied any knowledge of ever having had a venereal disease. The family history was noncontributory.

Physical examination revealed an emaciated woman who appeared to be having some discomfort

Case 2. March 9, 1933

Case 2. Oct. 8, 1935

but no acute pain. The evidences of weight loss were striking. Maximal abdominal tenderness occurred in the right upper quadrant, although when the patient's attention was diverted fairly firm pressure could be exerted without evidences of marked tenderness. There were no other pertinent findings.

Significant laboratory findings included a 4+ blood Wassermann confirmed on two subsequent occasions. The spinal fluid was negative. Blood count showed 70% hemoglobin, 4,800,000 red blood cells, normal total leukocytes and differential. Blood chemistry determinations were within normal limits. Free acid was absent in eleven specimens of gastric juice following histamine administration. Gastro-intestinal studies by Dr. Paul showed a small stomach. The lesser curvature appeared shortened and there were two incisuras on the greater curvature opposite the angularis. There was a definitely palpable nodule in the prepyloric area. Peristalsis was absent throughout the stomach. The cap filled immediately and was negative. In six hours a few flecks of barium remained in the stomach. The findings were interpreted as those of an ulcerative lesion on the lesser curvature of the middle third of the stomach, with probable adhesions between the gall-bladder and duodenum. Oral cholecystogram showed no evidence of calculi and the concentration and contraction responses were normal.

Because of the positive blood serology, the age of the patient, the extent of the gastric lesion, and the relatively normal concentration of hemoglobin and number of erythrocytes in the presence of a marked loss of weight, a trial of antisyphilitic therapy was decided upon. Ascending doses of potassium iodide and intramuscular mercury salicylate were used. The mercury caused a stomatitis, and bismuth salicylate was substituted. She remained in the hospital until May 16, 1933. During this interval she gained 28 pounds in weight, and her symptoms were very distinctly improved. Roentgen studies showed no appreciable change, however. She was discharged at this time with instructions to continue on the same medication and return in five weeks. On her second admission she reported progressive gain in strength, weight and endurance. She had been able to resume all of her household duties. There continued to be no demonstrable change in the gastric lesion to roentgen examination.

The patient was not seen again until August 5, 1935. Her weight at this time was 135 pounds, a gain of 40 pounds since her first admission. Serious domestic difficulties had intervened and she was contemplating divorce. Most of her complaints at this time were referable to this situation. She had continued to have attacks of right upper quadrant pain at about six-month intervals. Gastric analysis at this time showed free acid to be present fifteen minutes after the injection of one-half milligram of histamine. Gastro-intestinal studies were reported as follows: "The stomach is of fairly normal size. Peristalsis is greatly diminished and only shallow waves are visualized on both curvatures. In six hours the stomach is empty. As compared with the previous examinations there has been improvement in the appearance of the stomach. There is still some loss of flexibility of the wall but the stomach has increased in size and is much less contracted and rigid." The blood Wassermann was again 4+. Thiobismol and siomine were advised by a consultant at this time.

COMMENT

The frequency with which syphilis of the stomach occurs is a subject of considerable dispute. Some insist that the recognition of treponema pallida in tissue excised from a gastric lesion is necessary in order to make a diagnosis of gastric syphilis. However, the infrequency with which[3] treponema pal-

(Continued on page 756)

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« « « EDITORIALS » » »

Physician Candidates

PHYSICIANS have a wider service to render to the people than through their individual practice of medicine. Their training and their years of intimate relationshp with the people of this and other states in all walks of life give them a background for public service that is given to but few to acquire.

It is a source of pleasure to us to note that in the coming State election, many of our colleagues have offered themselves for positions of great public responsibility. Those that have come to our attention include Dr. A. J. Pullen, of Fond du Lac, who seeks nomination for Congress on the Republican ticket in the Sixth Congressional District, and Dr. Bart E. McGonigle, Ableman, a member of the State Board of Medical Examiners, who is a candidate for Congress on the Democratic ticket in the Third Congressional District. In Ashland, Dr. John M. Dodd, Sr., now mayor of Ashland and a former president of this Society, has announced his candidacy on the Republican ticket for the State Senate in the Twelfth Senatorial District.

For seats in the State Assembly, Dr. J. S. Hansberry, of Wonewoc, has filed his nomination papers as a Progressive in Juneau County. In Barron County, Dr. A. G. Benson, of Rice Lake, is another Progressive candidate. In Oneida-Vilas County, Dr. Gale W. Huber, of Minocqua, president of the Association of County Boards, is a candidate in the Republican column.

We appreciate that election means no small sacrifice to these physicians, but we are happy that they have consented to serve, and we know that if elected their service will be of peculiar value to the people of this commonwealth.

Eliminate Substitution

IN A RECENT issue of *The Wisconsin Druggist* we note with pleasure the efforts being made by the Prescription Protective Bureau to eliminate substitutions on physicians' prescriptions. The Prescription Protective Bureau in their Wisconsin survery found that over 25 per cent of the pharmacists whose stores were checked substituted on physicians' prescriptions.

The Wisconsin druggists in their journal stated that:

> "The doctor's prescription is a sacred message to the pharmacist. It should be carried out without the slightest de-

viation. Most retail druggists are trustworthy men who cooperate 100 per cent with the physician and the patient. However, the fact that there are a few who do substitute on prescriptions, makes the work of the Prescription Protective Bureau important to pharmacy and to the ethical pharmacist, the physician and the patient.

"The Wisconsin Pharmaceutical Association heartily approves of the work of the Prescription Protective Bureau, and stands ready to be of every possible help in a campaign that is of such decided value to the ethical retail druggists."

Predictable Experience

THOSE who have had an opportunity to make a deep study of the problems revolving about the social aspects of medicine have been able to forecast the future of given experiments by study of earlier experiments. A striking example of the accuracy of such forecasts was made available to the profession through the journal "Northwest Medicine" in its August issue. Our membership is doubtless aware that in part of the states of Oregon and Washington, industrial contract practice has been rife during the depression years. Feeling that the vicious features of such practice could only be met through a plan offered by organized medicine, one county society sponsored an industrial health association.

Those conversant with past experience made several predictions. Among others they felt certain that in contract competition, the plan offered by organized medicine to provide a proper service would be faced by promises of "more for less" by those commercially minded. Out of previous experience they predicted that such a plan would not eliminate the pernicious practice, but might indeed educate the layman to the thought, without being able to make it clear in his mind a distinction between that which is good and that which is bad.

Again it was predicted that attempts to set an income level, below which all would be entitled to receive such organized service and above which all others would be denied the benefits of the plan, would prove unworkable in fact and was not based upon a proper conception of the problem to be met.

In the journal quoted we find now that the state society concerned has supported its Council and sought the abandonment of the plan by organized medicine. That is of interest, but it is of even greater interest to note these quotations:

> "In order to meet the competition of other like organizations, it was necessary for the organization to give coverage to certain executives who had incomes of more than $1,800 a year.
>
> "Physician members were now obligated to care for their former pay patients as members of the . . . association at the low net fee which the association was able to pay . . . . The matter was definitely brought to a head when a contract was entered into by the . . . association and teachers of the public schools . . . who earned over $1,500 a year.
>
> "The . . . association was forced, in order to meet the competition of the commercial associations, to advise employers and employees regarding their organization. This, of course, constituted solicitation. . . . An attempt was made to eliminate the objectionable features, but was not successful.
>
> "Unfortunately, this controversy . . . . has made the public health-insurance-minded in a way that may not bode good for the profession nor for the public itself. Such has been the experience in other countries where the high standard of medical service, as is given in America, cannot be maintained under conditions where the physician-patient relationship is disturbed."

We commend our sister association for its frank and public recognition of the difficulties it encountered. Here is an experiment which should not have to be duplicated to the disadvantage of the profession elsewhere. Experience is still our best guide.

. . . . THE PRESIDENT'S PAGE . . . .

Appreciation

WITHIN a very few days from the time this page appears, my term as President of the State Medical Society of Wisconsin comes to an end.

While this office today carries with it a large measure of responsibility and makes many demands upon the time and energy of its incumbent, it likewise represents the highest honor within the power of the medical profession of the State to bestow. Consequently, I have felt that the least I could do in return for this honor was to cheerfully give as much as possible of my time and effort for the furtherance of the interests of the medical profession, and this I have tried to do.

The work and responsibility have not been without their compensations, however, and these compensations are none the less valuable because they are of an intangible and spiritual nature. During the past year, in my travels about the State, I have come to know a great many of my fellow practitioners with whom I would otherwise have had no contact; I flatter myself that I have made new friends; I have come to have an insight into some of the problems with which various members of the medical profession are beset, and which differ from my own, with, I think, a consequent broadening of my viewpoint, and a definite tendency to be more charitable in my judgment of the other fellow. These are only a few of the compensations, and, as I have said, they have a value not to be measured in dollars and cents, but a value which is, nevertheless, very real.

For all of these things and many more, for the loyal and hearty cooperation of the officers and members at all times, I now express my thanks and appreciation. To my good friend, Dr. Stephen E. Gavin, the very capable gentleman who will soon be your President, I extend my best wishes for good luck and success during his term of office.

In conclusion, let me again most earnestly urge all of you to attend the coming meeting of the State Society in Madison, if it is at all possible for you to do so.

Ralph M. Carter.

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Mrs. Arthur J. McCarey, 902 S. Madison St., Green Bay

Upward of 300 Auxiliary Members and Guests Will Participate in Madison Program, Sept. 9-10

WITH registration and headquarters on the mezzanine floor of Hotel Loraine, upward of 300 members and guests of the Auxiliary to the State Medical Society of Wisconsin will be present for its eighth annual meeting.

Mrs. F. Gregory Connell, Oshkosh, President of the Auxiliary, emphasizes that each woman attending the annual meeting with her husband, whether she be a member of the Auxiliary or not, is to feel that she has a cordial welcome awaiting her to participate in all of the Auxiliary program.

Features of the Madison program include a luncheon, with the Heidelberg Octette of Chicago furnishing special music, at the Loraine Hotel on Wednesday noon; an automobile trip about Madison the same afternoon; tea at the Executive Mansion in the late afternoon; and a complimentary theatre performance for members and guests of the Auxiliary, Wednesday evening.

Dr. Morris Fishbein, Editor of the Journal of the American Medical Association and of Hygeia, will present the annual address before the Auxiliary and its guests on Thursday morning, which will be followed by a luncheon and bridge at the Maple Bluff Country Club, Thursday noon. The annual dinner and dance (informal) to be held in the Ballroom of the Loraine Hotel, Thursday evening at 6:45, will complete the program. On this occasion Dr. Morris Fishbein will deliver the sole address of the evening on "The Hospital and the Doctor." Doctor Fishbein's address has been designed particularly for the members and their wives and will be of unusual interest to the Auxiliary members this year.

Mrs. F. Gregory Connell, Oshkosh
President, State Auxiliary

Ibsen's "Doll House" To Be Presented in Complimentary Performance for Auxiliary and Guests Wednesday Evening

STARRING Agatha Karlen, whose professional talent is widely known, a special cast under the direction of J. Russell Lane, director of the University Theatre, will present Ibsen's "Doll House" in a complimentary performance for members of the Auxiliary and their guests at eight fifteen, Wednesday evening, September 9. The performance will be staged at the University Theatre at Bascom Hall, at the head of the hill on the University Campus.

Assisting Agatha Karlen, as Nora, the cast will include Mr. Leonard Woollen, as Torvald, and Mr. Carl Cass, as Doctor Raak; also Mrs. A. W. Bryan, Mrs. J. W. Steenis, Mr. Emery, and Mr. Marion Zakin; also three children, Sarah Anne Fowlkes, Laura Lee Lane, and Michael Dean.

Final Program for Auxiliary Announced

WITH headquarters at the Hotel Loraine, a full program for the Woman's Auxiliary has been jointly announced by Mrs. F. Gregory Connell, Oshkosh, president; Mrs. R. H. Jackson, Madison, chairman of local arrangements; and Mrs. Homer Carter, Madison, president of the Dane County Auxiliary. The general program will be preceded by a 6:30 dinner meeting on Tuesday evening, September 8, at the Hotel Loraine, Pompeian Room, for the Executive Board. Presidents and presidents-elect of the county auxiliaries and officers of the State Auxiliary will be in attendance at this dinner. The program for Wednesday and Thursday follows:

WEDNESDAY, SEPTEMBER 9

A. M.

10:00—General Meeting, Crystal Ballroom, Loraine Hotel.

Invocation—Rev. E. O. Kennedy

Address of Welcome—Mrs. Homer Carter, Madison, president, Auxiliary of Dane County Medical Society.

Response—Mrs. F. Gregory Connell, Oshkosh, president, Auxiliary of State Medical Society of Wisconsin.

Business Session.

P. M.

12:30—Luncheon, Loraine Hotel—Main dining room—Lobby floor, 85¢. Heidelberg Octette, Chicago.

2:30–3:30—Automobile trip about Madison.

3:30–5:00—Tea at Executive Mansion.

Harpist—Margaret Rupp Cooper.

8:15—"Doll House," Theater, Bascom Hall, University Campus. Complimentary for members and guests.

THURSDAY, SEPTEMBER 10

A. M.

9:30—General Meeting, Crystal Ballroom, Loraine Hotel.

Business Session and Election of Officers.

Induction of President, Mrs. C. A. Harper, Madison.

Address—Dr. Morris Fishbein, Editor of Journal of American Medical Association and Hygeia.

P. M.

12:30—Cars leave Loraine Hotel for Luncheon.

1:00—Luncheon and Bridge, Maple Bluff Country Club, $1.25.

Transportation from the hotel.

3:30—Post-Convention Board Meeting, Maple Bluff Country Club.

6:45—Annual Dinner and Dance (informal), Crystal Ballroom, Loraine Hotel.

Speaker of evening—Dr. Morris Fishbein.

Convention Committees Announced for Auxiliary Meeting

THIRTEEN convention committees to handle the arrangements for the eighth annual meeting of the Auxiliary to the State Medical Society of Wisconsin have been appointed by Mrs. Reginald H. Jackson, Madison, general chairman of arrangements. The general arrangements are in charge of Mrs. Reginald H. Jackson, Mrs. Homer Carter.

Delegates and Alternates—Woman's Auxiliary

Brown–Kewaunee–Door County

Delegates—

Mrs. Arthur J. McCarey ----------Green Bay
Mrs. D. F. Gosin ----------Green Bay

Alternates—

Mrs. E. S. Schmidt ----------Green Bay
Mrs. J. P. Lenfestey ----------De Pere

Dane County

Delegates—

Mrs. Homer Carter ----------Madison
Mrs. Stanley Briggs ----------Madison

Alternates—

Mrs. Harold Marsh ----------Madison
Mrs. H. L. Greene ----------Madison

Fond du Lac County

Delegates—

Mrs. J. Connell ----------Fond du Lac
Mrs. L. C. Gardner ----------Fond du Lac

Alternates—

Mrs. R. G. Mills ----------Fond du Lac
Mrs. J. S. Wier ----------Fond du Lac

Kenosha County

Delegates—

Mrs. Lulu Murphy ----------Kenosha
Mrs. A. L. Mayfield ----------Kenosha

Alternates—

Mrs. H. Schwartz ----------Kenosha
Mrs. I. Bowing ----------Kenosha

Marinette–Florence County

Delegates—

Mrs. H. W. Haasl ----------Peshtigo
Mrs. J. V. May ----------Marinette

Alternates—

Mrs. H. L. Jorgenson ----------Marinette
Mrs. M. D. Bird ----------Marinette

Milwaukee County

Delegates—

Mrs. Harry Heeb ----------Milwaukee
Mrs. Francis Murphy ----------Wauwatosa
Mrs. Robert McDonald ----------Milwaukee
Mrs. James Sargent ----------Milwaukee
Mrs. J. Gurney Taylor ----------Milwaukee
Mrs. Louis Warfield ----------Milwaukee
Mrs. William Jermain ----------Milwaukee

Alternates—

Mrs. Earl Baum ----------Milwaukee
Mrs. Bernard Churchill ----------Milwaukee
Mrs. Norbert Enzer ----------Milwaukee
Mrs. John McCabe ----------Milwaukee
Mrs. William Grotjan ----------Milwaukee
Mrs. William O'Malley ----------Wauwatosa
Mrs. Irwin Schulz ----------Wauwatosa

Outagamie County

Delegates—

Mrs. J. J. Laird ----------Black Creek
Mrs. A. E. Rector ----------Appleton

Alternates—

Mrs. C. D. Neidhold ----------Appleton
Mrs. W. H. Towne ----------Hortonville

Portage County

Delegates—

Mrs. G. W. Reis ----------Junction City
Mrs. E. E. Kidder ----------Stevens Point

Alternates—

Mrs. Fred A. Marrs ----------Stevens Point
Mrs. Harold Coon ----------Stevens Point

Racine County

Delegates—

Mrs. I. F. Thompson ----------Racine
Mrs. F. B. Marek ----------Racine

Alternates—

Mrs. J. F. Henken ----------Racine
Mrs. E. J. Schneller ----------Racine

Waukesha County

Delegates—

Mrs. R. E. Davies ----------Waukesha
Mrs. H. G. B. Nixon----------Hartland

Alternates—

Mrs. J. B. Noble ----------Waukesha
Mrs. W. H. Oatway ----------Waukesha

Green Lake–Waushara–Adams County

Delegates—

Mrs. C. U. Senn ----------Ripon
Mrs. Orvil O'Neal ----------Ripon

Alternates—

Mrs. A. J. Wiesender ----------Berlin
Mrs. B. E. Scott ----------Berlin

Manitowoc County

Delegates—

Mrs. W. E. Donohue ----------Manitowoc
Mrs. M. P. Andrews ----------Manitowoc

Alternates—

Mrs. C. H. Barnstein ----------Newton

Winnebago County

Delegates—

Mrs. T. D. Smith ----------Neenah
Mrs. E. B. Pfefferkorn ----------Oshkosh

Alternates—

Mrs. M. N. Pitz ----------Neenah
Mrs. Henry Romberg ----------Oshkosh

President of the Dane County Auxiliary, and Mrs. F. Gregory Connell, President of the State Auxiliary. Chairmen for the Dane County Auxiliary Committee, as announced by Mrs. Jackson, follow:

Hostess Committee at Loraine Hotel:
Mrs. J. S. Supernaw, chairman
Mrs. F. F. Bowman, co-chairman

Hostess Committee at Convention Hall, Memorial Union:
Mrs. George Stebbins, chairman
Mrs. David Atwood, co-chairman

Registration:
Mrs. Oscar Friske, chairman
Mrs. Eben Carey, co-chairman

Entertainment:
Mrs. Homer Carter, chairman
Mrs. J. S. Supernaw, co-chairman

Menu:
Mrs. W. C. Reineking, chairman
Mrs. R. H. Jackson, co-chairman

Tickets:
Mrs. B. I. Brindley, chairman
Mrs. K. K. Amundsen, co-chairman

Information:
Mrs. Arthur Sullivan, chairman
Mrs. Thomas Tormey, co-chairman

Flowers:
Mrs. Elmer Sevringhaus, chairman
Mrs. J. N. Sisk, co-chairman

Golf:
Mrs. V. B. Hyslop, chairman

Bridge:
Mrs. E. E. Neff, chairman
Mrs. H. Kent Tenney, co-chairman

Publicity:
Mrs. Albert Bryan, chairman

Exhibits:
Mrs. C. A. Harper, chairman
Mrs. David Williams, co-chairman

Transportation:
Mrs. Harold Marsh, chairman
Mrs. Clarence Schubert, co-chairman

Society Proceedings

DISTRICT MEETING

A Tri-County Medical meeting, including the counties of Walworth, Racine, and Kenosha, was held at the Geneva Hotel, Lake Geneva, on July 1. Dedicated to Dr. B. J. Bill, of Genoa City, who is one of the oldest practicing physicians in the State, the program began at eleven o'clock with a chicken dinner at one. Speakers included the following:

Address of Welcome—Dr. T. L. Jacobson, President, Walworth County Medical Society.

Address—Dr. B. J. Bill, Genoa City.

Why Not Breast Feeding—Dr. John Docter, Racine.

The Diagnosis and Treatment of Heart Diseases—Dr. Francis Murphy, Milwaukee.

Breech Presentation—Dr. Robert Grier, Evanston, Illinois.

Practical Aspects of Liver Function — Dr. Lathan Crandall, Northwestern University, Chicago.

SAUK COUNTY

A meeting of the Sauk County Medical Society was held Wednesday evening, July 29, at the Colonial Room of Hattle's Cafe, Baraboo. The following papers were read: "Skin Cancer and its Treatment," by Dr. L. V. Littig, Madison; "Hay Fever and Asthma," by Dr. Lester McGary, Madison.

News Items and Personals

Dr. H. H. Meusel, just back from a trip to Europe, presented a travel talk at the weekly meeting of the Oshkosh Lions Club on July 30.

—△—

Col. Gilbert Seaman, superintendent of the Winnebago State Hospital at Oshkosh, will speak at the annual convention of the Association of Military Surgeons of the United States, to be held October 29 to 31, in Detroit.

—△—

Dr. R. S. Vivian, Beloit health officer for the last three years, has submitted his resignation, effective September 1.

Advances that have been made in recent years in medical science were outlined by Dr. G. N. Pratt in an address at the weekly luncheon meeting of the Menasha Lions Club on July 27.

—△—

Dr. H. H. Fechter, Wausau, has been appointed Marathon County Health officer, to head the first county health unit to be set up in the State. The Marathon County health unit was made possible under the national social security act, which makes provision for three model county health units in Wisconsin.

Dr. Stephen L. Casper, who has practiced in Berlin, Wisconsin, since 1928, has disposed of his practice to Dr. Herman C. Koch, of Whitehall. Doctor Casper is taking postgraduate work at the University of Pennsylvania.

—△—

Dr. J. H. Houghton will go to the University of Pennsylvania for a two-year postgraduate course in surgery. Dr. C. J. Radl, formerly of Pardeeville, Wisconsin, will take charge of Doctor Houghton's practice at Wisconsin Dells.

—△—

Through the efforts of Mr. Walter A. Drews, investigator for the State Board of Health, the following were in court recently, charged with practicing medicine without a license:

Homer Emerson Kindness, of Milwaukee, was given a suspended sentence. Kindness, who is a full-blooded Indian, was charged with selling "Indian herb tonic" for the cure of anemia and nervousness.

E. P. Jordan, of Milwaukee, a masseur and physiotherapist, was fined $100 and costs on the charge of diagnosing a case and prescribing treatment.

—△—

Dr. R. G. Arveson, of Frederic, gave a talk on free hospitalization—cooperative medicine, at a meeting of the Equity Union, at Luck, on July 17.

—△—

Dr. and Mrs. W. W. Stiles and daughter, of Arpin. left August 16 for Peru, by way of Los Angeles. They expect to remain in South America for seven or eight years, where Doctor Stiles will specialize in surgery at the Policlinica in Arequipa.

—△—

Due to pressing office duties, Dr. J. W. McGill, Superior, has resigned his position as school physician, which he has filled for the last ten years. Dr. L. W. Beebe, who has been named as his successor, will assume his new duties with the beginning of the fall term.

—△—

Dr. P. A. Quilling, Menomonie, is now associated with the Menomonie Clinic, succeeding Dr. O. J. Blosmo, who left recently to locate in Los Angeles. Doctor Blosmo has been associated with the Menomonie Clinic since 1923.

—△—

Through the cooperation of the La Crosse Medical Society, a clinic for children of indigent families, for the purpose of immunization against diphtheria and smallpox, was held at the La Crosse Health Department, August 15.

DRAMA OF "THE GUARDIANS OF YOUR HEALTH"

Each Tuesday, Wednesday and Thursday the State Medical Society presents "The Guardians of Your Health" over the state-owned radio station WHA, Madison (940). These health messages are broadcast at 9:00 a. m.

The schedule for this month:

Sept. 15—Eye Injuries.
Sept. 16—Your Child's Heart.
Sept. 17—High Lights of the State Medical Meeting.
Sept. 22—Burns.
Sept. 23—Speech Defects.
Sept. 24—Headaches.
Sept. 29—Down the Wrong Pipe.
Sept. 30—Do They Hear?
Oct. 1—School Lunches.
Oct. 6—Diabetes.
Oct. 7—Bed Wetting.
Oct. 8—Questions and Answers.

DEATHS

Dr. A. J. Puls, Milwaukee, who retired from practice in April because of poor health, died August 10. He was born in Mayville, Wisconsin, in 1857, was graduated from the University of Wisconsin, and from the University of Heidelberg in 1883. He practiced medicine in Mayville for three years and then opened offices in Milwaukee, where he has practiced continuously except for periods of study at Johns Hopkins and in Berlin, Germany. Surviving, besides his wife, are a daughter, a sister, and a brother.

Dr. Edward McGrath, of Baraboo, died on August 13, following injuries received in an automobile accident complicated by pneumonia. Born in 1874 in Lafayette County, he was graduated from Milwaukee State Teachers College and from the University of Wisconsin, and later studied medicine at Rush Medical School, Chicago. He was graduated in 1909 and has since practiced in Baraboo.

Doctor McGrath was a member of the Sauk County Medical Society, the Wisconsin State Medical Society, and the American Medical Association.

Surviving are three sisters, Mrs. William Conway, Madison; Mrs. John Hart, Waupaca; and Miss Jenny McGrath, Monroe.

Dr. Arthur A. Rock, who was forced into retirement a few years ago because of poor health, died on July 17, at the Sacred Heart Sanitarium. Born in 1875 in Manitowoc, he was graduated from the old Milwaukee Medical College. He was a charter member of the Alpha Kappa Kappa medical fraternity. Survivors are his widow, three sisters, and two brothers.

Dr. **John J. O'Neill, Oshkosh,** who was sixty-five years old, died on July 31. After graduation from Northwestern University Medical School in 1895, he practiced medicine in Dundee and Elroy, Wisconsin, for a number of years, and for fifteen years had followed his profession in Oshkosh. He is survived by his widow, a son, and a brother.

Dr. **Charles F. North** was born in 1854 and died on July 29. He was graduated from the Universitat Leipzig Medizinische Fakultat, Saxony, in 1884, and had practiced in Beaver Dam for thirty-nine years. Survivors are his widow, two daughters, and a son.

Dr. **Barton L. Tupper, Glidden,** was born in Sheboygan, Wisconsin, on July 26, 1869, and died on June 22. He was graduated from the Illinois Medical College in Chicago, and had practiced in Glidden since 1918. He is survived by his widow and three sons.

Dr. **George N. Brazeau, Milwaukee,** was born in Oconto, Wisconsin, in 1872, and died on July 13. He was graduated from the School of Medicine of Northwestern University and also studied and practiced in Paris, France. For three years he was located in Montreal and during the War was assigned to a base hospital in New York City. He had practiced in Milwaukee since 1920.

Dr. **Wallace E. Bray, Delavan,** was born in Dodgeville, Wisconsin, on June 22, 1903, and died on July 2. He was graduated from the School of Medicine of Northwestern University, and practiced in Evansville, Union Grove, and Delavan. He is survived by his widow and two children.

Dr. **William A. Martens,** aged fifty-eight years, a specialist in eye, ear, nose, and throat work, died August 3. Born in Milwaukee, he attended the old Milwaukee Medical School, from which he was graduated in 1903. He served his internship in the old Trinity Hospital, and later did postgraduate work at the University of Chicago and Harvard University. He practiced in New Holstein, Wisconsin, until 1914, when he moved to Milwaukee.

He was a member of the Calumet County Medical Society, the Wisconsin State Medical Society, and the American Medical Association.

Doctor Martens is survived by his widow; a daughter, Marion; a son, Dr. Earl Martens; a sister, Mrs. Paul Wendorf; and a brother, John, all of Milwaukee.

Dr. **Oscar P. Schnetzky, Princeton,** was born in 1879 and died on July 28. He was graduated from the Milwaukee Medical College in 1903, served as intern at Trinity Hospital in Milwaukee, and then took postgraduate work in the College of Physicians and Surgeons of the University of Illinois. He practiced medicine in Elkhart Lake and Milwaukee, Wisconsin, and Schuyler, Nebraska, until 1917, when he enlisted in the medical corps. Since his discharge from the army, he had practiced in Princeton. Besides his widow, he is survived by a brother, Hugo, of Milwaukee, and a daughter, Mrs. W. R. Hayes, of Chicago.

MARRIAGES

Dr. H. M. Buckner, Mount Horeb, and Miss Arline Miller, Cameron, on July 20.

Dr. John Ford Card, San Francisco, and Dr. Jane Stickney Connell, Oshkosh. Mrs. Card is the daughter of Dr. and Mrs. F. Gregory Connell, of Oshkosh.

SOCIETY RECORDS

New Members

Cyril R. Marlewski, 1403 W. Lincoln Ave., Milwaukee.

C. K. Ziegler, 3430 W. Vliet St., Milwaukee.

David Cleveland, 324 E. Wisconsin Ave., Milwaukee.

C. L. White, Mineral Point.

C. J. Metcalf, Dodgeville.

A. M. Christofferson, Waupaca.

R. S. Hirsch, Viroqua.

K. F. Prefontaine, Slinger.

F. C. Morgenroth, 3014 N. Farwell Ave., Milwaukee.

Gerald Rau, Two Rivers.

Gustav Schmitt, 1626 No. 12th St., Milwaukee.

Changes in Address

H. C. Koch, Whitehall, to Berlin.

B. E. Moore, Statesan, to 1209 Oak St., Danville, Illinois.

S. L. Casper, Berlin, to 2131 No. 70th St., Wauwatosa.

E. A. Weller, Stevens Point, to Weyauwega.

E. B. Banister, Appleton, to Monroe, Michigan.

DR. EILEF SMEDAL APPOINTED

Gov. Philip F. La Follette announced late in July the appointment of Dr. Eilef Smedal of La Crosse as a member of the Governor's Committee on Public Welfare. Doctor Smedal will serve on the subcommittee whose activities are devoted to the field of health and disability. On this committee are also Dr. Ewald Wetzel, of Milwaukee, President-Elect of the Wisconsin State Dental Society, and Mr. J. G. Crownhart (acting chairman), Secretary of the State Medical Society.

Activities of the subcommittee on health and disability will be presented to the members of the State Medical Society preceding the Smoker held in connection with the Annual Meeting in Madison, September 9. Professor J. H. Kolb, Director of the Committee, and Mr. J. G. Crownhart, Secretary of the State Medical Society, will be the speakers of the occasion. Details of the program will be found on page 739 of this issue.

Over One Thousand Physicians Anticipated For 95th Anniversary Meeting Memorial Union, Madison, Sept. 9-10-11

UPWARD of 1,000 Wisconsin physicians and over 300 members of the Auxiliary are expected to be in attendance at the Ninety-Fifth Anniversary meeting of the State Medical Society in Madison, September 9–10–11.

Announcement of the final program by Dr. Gunnar Gundersen, Chairman of the Committee on Scientific Work, is made in this issue of the Journal. Featuring round table luncheons and sectional meetings, the program provides a wide range of subject matter so as to cover the interests of physicians in substantially all fields of medical practice. Over eighty will participate in presenting formal papers, in addition to the discussants and the 240 who will enter into active discussional participation in the round table luncheons.

Distinguished speakers from without Wisconsin will be 29 in number and include the following:

1. Dr. James Ewing, Prof. Oncol., Cornell University Medical College, Memorial Hospital for the Treatment of Cancer, New York City, New York.
2. Dr. J. B. Murphy, Director of Cancer Research, Rockefeller Institute for Medical Research, New York City, New York.
3. Dr. H. B. Andervont, Biologist, U. S. Public Health Service, Boston, Massachusetts.
4. Dr. Emil Novak, Assoc. Prof. Obstetrics, University of Maryland School of Medicine and College of Physicians and Surgeons; Assoc. Gynecologist, Johns Hopkins Medical School, Baltimore, Maryland.
5. Prof. Henry Coutard, Chief of Department of X-Ray Therapy for Cancer, Radium Institute of the University of Paris, Foundation of Curie, Paris, France.
6. Dr. Leiv Kreyberg, University of Oslo, Oslo, Norway.
7. Dr. Edgar Allen, Prof. of Anatomy and Chairman of Department, Yale University, New Haven, Connecticut.
8. Dr. Madge Thurlow Macklin, Assoc. Prof. Histology and Embryology, University of Western Ontario Medical School, London, Ontario.
9. Dr. John D. Camp, Assoc. Prof. Radiology, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minnesota.
10. Dr. Richard W. TeLinde, Baltimore, Maryland.
11. Dr. K. K. Nygaard, Mayo Clinic, Rochester, Minnesota.
12. Dr. M. W. Comfort, Assoc. Prof. Medicine, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minnesota.
13. Dr. Harry Culver, Assoc. Prof. Genito-Urinary Surgery, Northwestern University Medical School, Chicago, Illinois.
14. Dr. Avery D. Prangen, Assoc. Prof. Ophthalmology, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minnesota.
15. Dr. Francis L. Lederer, Prof. Laryngology, Rhinology, and Otology, University of Illinois College of Medicine, Chicago, Illinois.
16. Dr. Joseph L. Miller, Clin. Prof. Medicine, The School of Medicine of the Division of the Biological Sciences, University of Chicago, Chicago, Illinois.
17. Dr. John H. Skavlem, Ass't Prof. Medicine, University of Cincinnati, College of Medicine, Cincinnati, Ohio.
18. Dr. Nathan A. Womack, St. Louis, Missouri.
19. Dr. John Alexander, Prof. Surgery, University of Michigan Medical School, Ann Arbor, Michigan.

Loraine Hotel, Madison, Convention Headquarters.

20. Dr. M. Herbert Barker, Chicago, Illinois.
21. Dr. W. D. Coventry, Duluth, Minnesota.
22. Dr. King C. Woodward, Rockford, Illinois.
23. Dr. James E. M. Thomson, Lincoln, Nebraska.
24. Dr. James A. Johnson, Assoc. Prof. Surgery, University of Minnesota Medical School, Minneapolis, Minnesota.
25. Dr. Arthur F. Bratrud, Minneapolis, Minnesota.
26. Dr. Meredith F. Campbell, New York City, New York.
27. Dr. C. F. Dixon, Asst. Prof. Surgery, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minnesota.
28. Dr. Morris Fishbein, Editor, Journal of American Medical Association, Chicago, Illinois.
29. Dr. W. J. Mayo, Prof. Surgery, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minnesota.

All scientific sessions of the Society will be held in the Memorial Union Building, facing on Lake Mendota on the lower campus of the University of Wisconsin. The entire building will be devoted to the Society throughout meeting week, and all of the lower floor will be given over to the commercial and scientific exhibits.

EXHIBITS

Scientific exhibits will include those presented by:

Dr. R. H. Stiehm, Madison
Dr. J. W. Gale, Madison
Dr. W. H. Oatway, Madison
Dr. A. L. Tatum, Madison
Dr. O. O. Meyer, Madison
Dr. Arnold Jackson, Madison
Prof. T. H. Bast, Madison
Dr. O. A. Mortenson, Madison
Dr. P. F. Swindle, Milwaukee
Dr. W. D. Stovall, Madison

"RIGHT ON TIME"

Members are advised that every session throughout the Annual Meeting will start exactly on the hour stated in the program. So far as possible the meeting will be run exactly on schedule. Members may assume that it will not vary at any time over five minutes from the published schedule.

Dr. S. J. Seeger, Milwaukee
Dr. L. D. Smith, Milwaukee
Dr. R. E. Burns, Madison
Dr. R. M. Waters, Madison
Dr. H. R. Hathaway, Madison
Dr. E. A. Pohle, Madison
Dr. F. A. Davis, Madison

The address of the incoming president, Dr. Stephen E. Gavin, of Fond du Lac, will be presented before the general session on the Thursday morning program. At this session members will also hear a summarized report of recent actions of the House of Delegates.

Commercial-technical exhibits at the meeting, for which all available space was sold within two weeks from the time it was made available, will include exhibits by the following companies:

Bard–Parker Company, Inc.
Bilhuber–Knoll Corporation
H. G. Fischer and Company
General Electric X-Ray Company
Gerber Products Company
Horlick's Malted Milk Corporation
Hurley X-Ray Company
Kellogg Company
Kremers–Urban Company
Libby, McNeill and Libby
Mead Johnson Company
Medical Protective Company
Mellin's Food Company
V. Mueller and Company
Philip Morris and Co. Ltd., Inc.
Roemer Drug Co.
W. B. Saunders Company
Scanlan–Morris Company
Sharp and Smith—A. S. Aloe
E. R. Squibb and Sons
U. S. Hospitals Supply Company
U. S. Standard Products Company

Unusual Program Announced for Smoker, Wednesday Evening, September 9

A PREVIEW of Wisconsin's future legislative programs in the field of "public welfare" with particular stress upon the social aspects of medicine, will be afforded members of the State Society prior to the Annual Smoker on Wednesday evening, September 9th.

Meeting at the Memorial Union Building at 8:30 p. m., following the second session of the House of Delegates, the short program will be opened by Prof. J. H. Kolb, Director of the Governor's Committee on Public Welfare. Prof. Kolb will present for the first time the scope of work of this special committee created by the Governor in recent months to report prior to the coming legislative session.

Following Prof. Kolb, Mr. J. G. Crownhart, Secretary of the State Society and acting chairman of the subcommittee on health and disability, will present some of the fields of study of that particular committee and indicate other fields into which the subcommittee will turn its studies

Part of University Campus

Following this combined forty-five minute presentation, an informal smoker will be held in the Rathskeller on the ground floor of the Union Building. For this occasion the Society has obtained the Heidelberg octette of "Old Heidelberg," Chicago. Service for upwards of five hundred members will be provided for this Wednesday evening feature of the 95th Anniversary Meeting.

Twelve Round Table Luncheons Feature Thursday Session

RESPONDING to the demand for reinstatement of the round table luncheons for group discussion of common problems, Dr. Gunnar Gundersen, chairman of the Committee on Scientific Work, has arranged twelve group discussion luncheons for Thursday noon, September 10, the second day of the three-day meeting program.

Due to the limited facilities at the Memorial Union Building, these luncheons limited to twenty each are being held at the Loraine Hotel with luncheon service promptly at ten minutes after twelve. To facilitate transportation to the hotel from the general sessions, special chartered busses of the Madison Street Railway Company will be available outside the Union Building from ten minutes of twelve to five minutes after twelve. All who have made luncheon reservations will be entitled to free transportation to the hotel.

TELEPHONE CALLS

The State Medical Society will maintain a special operator at the Memorial Union Building and page service for the reporting of telephone calls. The number of the incoming call phone will be Fairchild 7400.

Upon conclusion of the luncheon discussions at 1:45, the busses will be found outside the hotel to transport the members back to the Memorial Union Building in time for the two o'clock sectional meetings.

Members of the Society were given an opportunity to make reservations for the luncheon of their choice by a special mailing late in August. Late reservations will be accepted at the registration desk in the Union Building so long as space remains within the individual luncheon rooms.

Distinguished Speaker at Annual Dinner, Thursday, Sept. 10

DR. MORRIS FISHBEIN, Chicago, Editor of the Journal of the American Medical Association, will be the speaker of the evening on the occasion of the Annual Dinner of the Society at the Ballroom, Hotel Loraine, on Thursday evening, September 10.

"The Hospital and the Doctor" will be the subject of Dr. Fishbein's address. In view of the steadily increasing problems to the physician involved in the questions of hospital relationships, staffs, finances from both the point of view of the hospital itself and the patient, and the numerous schemes for hospital financing, no more timely topic could be selected. The dinner is for members and their wives and will be informal.

Dr. Fishbein is known to physicians everywhere for his brilliant presentations of the views of organized medicine as relates to the social aspects of medicine. Editor of Hygeia. Dr. Fishbein is the author of numerous publications for both the profession and the laity. Tickets for the dinner will be on sale at both the Hotel and the Memorial Union Building. A capacity attendance is anticipated for this address.

The Szpinalski Trio of Madison will play during the dinner hour. Following the speaker, the Ballroom will be open for dancing with dance music by Larry O'Brien's Orchestra.

House of Delegates to Have Important Sessions

MEETING for the first time in the Ballroom of the Loraine Hotel at seven sharp, Tuesday evening, September 8, members of the House of Delegates will find an unusually important program for their consideration.

At the Tuesday evening session, the House will hear additions to the reports of officers and committees published in the August issue of the Wisconsin Medical Journal. Following short presentations by the President and President-Elect, the House will choose one member from each of the thirteen councilor districts for the Committee on Nominations. The House will also select Councilors for the following districts:

1. First District—to succeed Dr. A. W. Rogers, Oconomowoc, term expires.
2. Second District—to succeed Dr. Frank W. Pope, Racine, term expires.
3. Fifth District—to succeed Dr. A. H. Heidner, West Bend, appointed by the Council to fill the vacancy occasioned by the death of Dr. C. M. Gleason.
4. Eleventh District—to succeed Dr. F. G. Johnson, Iron River, term expires.
5. Twelfth District—to succeed Dr. R. W. Blumenthal, Milwaukee, term expires.

Nominations for councilors must come in the first instance from delegates residing in the districts that are affected. Thus dele-

GUESTS OF HONOR

While not appearing upon the formal program, Dr. W. J. Mayo will be a special guest of the Society during the meeting.

Dr. A. W. Adson, President of the Minnesota State Medical Association, and Dr. E. A. Meyerding, Secretary of the Minnesota Association, will be guests of the Society throughout the meeting week and will be in attendance upon meetings of the Council and House as well as the scientific sessions.

WEAR YOUR BADGE

To obviate complaints made at previous sessions that non-members were attending the sessions, guards will be posted at all session room doors.

Admittance will be by badge only. Please help us to eliminate complaints by wearing your badge, to be obtained at the Registration Booth.

If your badge is lost, a duplicate may be obtained at the Registration Booth.

gates in the third district will be given an opportunity to caucus and present one or more nominations for their councilor and a member to the Committee on Nominations. The same procedure is followed for the election of all councilors.

Several proposed amendments to the Constitution and By-Laws will be acted upon by the House at the Tuesday evening session. These include proposals by the Secretary for a purely corrective amendment to the By-Laws to make it plain that the President-Elect succeeds the President without further election; a proposal by Dr. Bowen, Watertown, calling for election of councilors by the membership at councilor district meetings; a proposal from the 1935 Committee on Resolutions providing an additional councilor for each additional 250 members or major fraction thereof, over a base 250 members in any given councilor district; a proposal by the 1935 Committee on Resolutions adding the immediate past-president to the Council for one year with right of vote, and a final proposal from the Council creating a Council or Scientific Work to supercede the present Committee on Scientific Work.

Opportunity is to be provided for discussion by members of the State Board of Medical Examiners of a proposal to change the jurisdiction of the state investigator from the State Board of Health to the Board of Medical Examiners. This was initially presented at the 1935 session but laid on the table for one year at the request of the Board's Secretary.

Reference Committees of the House of Reports of officers and committees and on resolutions will report to the Wednesday evening session to be called at 6:45 p. m. in

Lake Mendota from Union Terrace

GOLF PLANS

Due to the University of Wisconsin presentation of the Cancer Institute on Monday and Tuesday, preceding the three days of the Annual Meeting, the Annual Golf Tournament of the Society has been cancelled. Members of the Society desiring to play golf at convenient times during the meeting will have extended to them the courtesies of the Maple Bluff Country Club, according to Dr. E. B. Keck, Madison, chairman of the golf arrangements.

A special green fee of $1 plus usual caddy fees of 80¢ have been arranged for members of the Society. Members desiring to play may go direct to the Club giving Dr. Keck's name when registering. Luncheon and dinner service may be obtained upon order when registering for play.

PARKING PRIVILEGES

When you register be sure to secure your windshield sticker for your car. Traffic authorities will endeavor to grant all possible privileges to cars showing this sticker during the annual meeting days.

ALUMNI LUNCHEONS

Every effort has been made to secure dining facilities which would permit of alumni luncheons. These facilities are not available in Madison, however, and in consequence the usual alumni luncheons will not be held this year.

Great Hall of the Memorial Union Building. Resolutions presented at the Tuesday evening session will be reported back to the House for action Wednesday evening. The final session of the House will be held at eight sharp Thursday morning in the Ballroom of the Loraine Hotel. At this session, members will hear the report of the Committee on Nominations and thereupon proceed to the election of the following officers:

A president-elect.

A speaker of the House of Delegates to succeed Dr. Gunnar Gundersen, La Crosse, term expires.

A vice-speaker of the House of Delegates to succeed Dr. J. C. Sargent, Milwaukee, term expires.

One delegate to the American Medical Association to succeed Dr. J. Gurney Taylor, Milwaukee, term expires.

One alternate delegate to the American Medical Association to succeed Dr. S. J. Seeger, Milwaukee, term expires.

One delegate to American Medical Association to succeed Dr. W. E. Bannon, La Crosse, term expires.

One alternate delegate to American Medical Association to succeed Dr. S. E. Gavin, Fond du Lac, term expires.

Nominations by the Committee on Nominations does not preclude additional nominations from the floor at the Thursday morning session.

The Memorial Union Terrace

Scientific Program for 95th Anniversary Meeting Wednesday, Thursday, Friday, Sept. 9-10-11

WEDNESDAY, SEPTEMBER 9

Joint Session With The Cancer Institute

8:00 A. M. Registration and exhibits open, Memorial Union.

9:00 General Session, Great Hall, President R. M. Carter, Green Bay, presiding.

9:00 Biopsy in the Recognition and Treatment of Early Malignancy.
Dr. James Ewing, Prof. Oncol., Cornell University Medical College, Memorial Hospital for the Treatment of Cancer, New York City.

9:40 The Relation of Filterable Viruses to Malignant Neoplasms.
Dr. J. B. Murphy, Director of Cancer Research, Rockefeller Institute for Medical Research, New York City.

10:20 *Recess — Demonstrations in Scientific Exhibits.*

10:40 The Effect of Bacterial Products on the Growth of Malignant Tumors.
Dr. H. B. Andervont, Biologist, U. S. Public Health Service, Boston, Massachusetts.

11:20 The Recognition and Treatment of Early Malignant Lesions of the Uterine Cervix.
Dr. Emil Novak, Assoc. Prof. Obstetrics, University of Maryland School of Medicine and College of Physicians and Surgeons; Assoc. Gynecologist, Johns Hopkins Medical School, Baltimore, Maryland.

Lounge, to be devoted to exhibits.

2:00 P. M. General Session, Great Hall, President R. M. Carter, presiding.

2:00 Treatment of Cancer of the Breast.
Prof. Henry Coutard, Chief of Department of X-Ray Therapy for Cancer, Radium Institute of the University of Paris, Foundation of Curie, Paris, France.

2:40 The Genetic and Constitutional Aspects of Spontaneous and Induced Tumors.
Dr. Leiv Kreyberg, University of Oslo, Oslo, Norway.

3:20 *Recess — Demonstrations in Scientific Exhibits.*

3:40 Glandular Dysfunction and the Development of Malignant Tumors.
Dr. Edgar Allen, Prof. of Anatomy and Chairman of Department, Yale University, New Haven, Connecticut.

4:20 A Study of the Occurrence of Cancer in Different Individuals of the Same Family.
Dr. Madge Thurlow Macklin, Assoc. Prof. Histology and Embryology, University of Western Ontario Medical School, London, Ontario.

6:45 Second Session, House of Delegates, Great Hall, Memorial Union.

8:30 Medical Economics, Great Hall, Speaker to be announced.

9:00 Smoker, Rathskeller, Memorial Union.

THURSDAY, SEPTEMBER 10

8:00 A. M. Elections, House of Delegates, Main Dining Room, Hotel Loraine.

8:00 Registration and exhibits open, Memorial Union.

8:30 General Session, Great Hall, President R. M. Carter, presiding.

8:30 Present Status of Goiter Prevention in Wisconsin.
Dr. Arnold S. Jackson, Madison.

8:45 The Conservative Management of Hydronephrosis.
Dr. James C. Sargent, Milwaukee.

9:05 Discussion opened by Dr. Meredith F. Campbell, New York City.

9:15 X-Ray Diagnosis of Tumors of the Brain and Spinal Cord.
Dr. John D. Camp, Assoc. Prof. Radiology, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minn.

Thursday A.M. (Cont'd)

9:45 Discussion—Dr. W. J. Bleckwenn, Madison; Dr. John L. Garvey, Milwaukee.

9:55 *Recess — Demonstrations in Scientific Exhibits.*

10:10 The Significance of Bleeding After the Menopause.
Dr. Richard W. TeLinde, Baltimore, Maryland.

10:40 Discussion — Dr. Eric W. Thurston, La Crosse; Dr. Roland S. Cron, Milwaukee.

11:00 Announcement of Delegate Actions, by the Secretary.

11:10 Address of the President-Elect, Dr. Stephen E. Gavin, Fond du Lac.

11:30 The Diagnosis and Treatment of Arterial Disease of the Extremities.
Dr. Maurice Hardgrove, Milwaukee.
Discussion—Dr. S. A. Morton, Milwaukee.

ROUND TABLE LUNCHEONS, Hotel Loraine, 12:00-1:45 P. M.

1. Surgery—The Present Status of Hernia Repair.
Dr. Frederick A. Stratton, Milwaukee, Discussion Leader.
2. Pediatrics—Prophylaxis of Communicable Diseases.
Dr. J. E. Gonce, Madison, Discussion Leader.
3. Bedside Medicine and Useful Drugs.
Dr. W. S. Middleton, Madison, Discussion Leader.
4. Obstetrics—Recent Advances in Clinical Obstetrics.
Dr. John W. Harris, Madison, Discussion Leader.
5. Tuberculosis.
Dr. Oscar Lotz, Milwaukee, Discussion Leader.
6. Fractures—Fractures of the Neck of the Femur.
Dr. Frederick J. Gaenslen, Milwaukee, Discussion Leader.
7. Eye, Ear, Nose, and Throat—The Allergic Nose and Allied Conditions.
Dr. William E. Grove, Milwaukee, Discussion Leader.
8. Gastro-Enterology—Irritable Colon.
Dr. Gjermund Hoyme, Eau Claire, Discussion Leader.
9. Neuro-Psychiatry—Migraine.
Dr. John L. Garvey, Milwaukee, Discussion Leader.
10. Urology—The Present Status of Bladder Neck Obstruction.
Dr. Alf H. Gundersen, La Crosse, Discussion Leader.

Great Hall, Memorial Union, where scientific sessions will be held.

11. Radiology—Recent Developments in Gastro-Intestinal Radiology.
Dr. Frank Mackoy, Milwaukee, Discussion Leader.
Diverticulosis—Dr. L. W. Paul, Madison
Stomach and Duodenum—Dr. M. E. Gabor, Milwaukee
Small Bowel—Dr. R. P. Potter, Marshfield
Large Bowel—Dr. R. L. Troup, Green Bay
Gallbladder—Dr. J. N. Sisk, Madison
Radiation Therapy—Dr. S. A. Morton, Milwaukee
12. Fractures—Fractures of the Ankle.
Dr. Robert E. Burns, Madison, Discussion Leader.

2:15 P. M. SEVEN SECTION MEETINGS

1. SECTION ON OBSTETRICS AND GYNECOLOGY. Old Madison. Presiding: Dr. Roland S. Cron, Milwaukee.
2:15 Bleeding Before the Menopause.
Dr. Jacob J. Horwitz, Milwaukee.
2:35 Discussion opened by Dr. Homer M. Carter, Madison.
2:55 Bleeding During Early Pregnancy.
Dr. John Dale Owen, Milwaukee.
3:25 Discussion—Dr. Robert E. McDonald, Milwaukee.
3:45 Bleeding During Late Pregnancy.
Dr. John W. Harris, Madison.
4:05 Discussion—Dr. Edwin F. Schneiders, Madison.

2. SECTION ON SURGERY. Tripp Commons. Presiding: Dr. Frederick A. Stratton, Milwaukee.
2:15 The Treatment of Fractures by the Use of Wire Fixation.
Dr. John O. Dieterle, Milwaukee.
2:35 Discussion opened by Dr. John W. Powers, Milwaukee.

Thursday P.M. (Cont'd)

2:45 The Value of the Schilling Count in Acute Appendicitis.
Dr. W. G. Gnagi, Jr., Monroe.
Dr. J. A. Schindler, Monroe.

3:05 Discussion opened by Dr. Erwin R. Schmidt, Madison.

3:15 Determination of Potential Hemorrhage in Cases of Jaundice by the Photo-Electric Method.
Dr. K. K. Nygaard, Mayo Clinic, Rochester, Minnesota, and Dr. M. W. Comfort, Assoc. Prof. Medicine, University of Minnesota, Graduate School of Medicine, Mayo Clinic. Rochester, Minnesota.

3:35 Spinal Cord Injuries, from a Neurosurgical Standpoint.
Dr. David Cleveland, Milwaukee.

3:55 Discussion—Dr. Andrew I. Rosenberger, Milwaukee.

3. SECTION ON UROLOGY. Georgian Grill. Presiding: Dr. George H. Ewell, Madison.

2:15 Blood Calcium Studies in Urinary Lithiasis.
Dr. C. R. Marquardt, Milwaukee.

2:35 Discussion opened by Dr. Ira Sisk, Madison, and Dr. N. W. Bourne, Milwaukee.

2:45 The Modern Management of Urinary Stone.
Dr. Walter M. Kearns, Milwaukee.

3:05 Discussion opened by Dr. Walter Sexton, Marshfield.
Dr. Alf H. Gundersen, La Crosse.

3:15 The Diagnosis and Treatment of Traumatism and Foreign Bodies in the Urogenital Tract.
Dr. Robert Irwin, Milwaukee.

3:35 Discussion opened by Dr. Harry Culver, Assoc. Prof. Genitourinary Surgery, Northwestern University Medical School, Chicago; Dr. S. J. Silbar, Milwaukee; Dr. George H. Ewell, Madison.

3:45 Tumors of the Urinary Bladder.
Dr. John B. Wear, Madison.

4:05 Discussion opened by Dr. James C. Sargent, Milwaukee.
Dr. H. M. Stang, Eau Claire.

4. SECTION ON EYE, EAR, NOSE AND THROAT. Round Table. Presiding: Dr. Wellwood M. Nesbit, Madison.

2:15 Some Factors in the Etiology of Iritis.
Dr. Lyman A. Copps, Marshfield.
Dr. G. L. McCormick, Marshfield.

2:35 Discussion by Dr. R. O. Ebert, Oshkosh.

2:45 The Problems of the Hard of Hearing and Deaf.
Dr. Thomas L. Tolan, Milwaukee.

3:05 Discussion opened by Dr. E. G. Nadeau, Green Bay.

3:15 Orthoptic Training in the Treatment of Strabismus.
Dr. John B. Hitz, Milwaukee.

3:35 Discussion opened by Dr. Frederick A. Davis, Madison.

3:45 Clinical Problems in Refraction.
Dr. Avery D. Prangen, Assoc. Prof. Ophthalmology, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minnesota.

4:15 Discussion opened by Dr. Mark E. Nesbit, Madison.

4:25 Problems Involved in the Diagnosis and Treatment of Malignancies of the Nasal Accessory Sinuses.
Dr. Francis L. Lederer, Prof. Laryngology, Rhinology, and Otology, University of Illinois College of Medicine, Chicago, Illinois.

4:55 Discussion opened by Chairman.

5:05 Election of Officers for newly created Section—.
Chairman.
Vice-Chairman.
Secretary–Treasurer.

5. SECTION ON MEDICINE. Great Hall. Presiding: Dr. James A. Evans, La Crosse.

2:15 The Problem of the Ameba Histolytica Carrier.
Dr. Joseph L. Miller, Clin. Prof. Medicine, The School of Medicine of the Division of the Biological Sciences, University of Chicago, Chicago, Illinois.

2:45 Discussion—Dr. Marcos Fernan-Nunez, Milwaukee.

2:55 Basic Points in Roentgen Ray Studies of Lung Anatomy and Pathology.
Dr. John H. Skavlem, Asst. Prof. Medicine, University of Cincinnati, College of Medicine, Cincinnati, Ohio.

3:25 Discussion—Dr. W. S. Middleton, Madison.
Dr. A. A. Pleyte, Milwaukee.

3:35 Allergy Studies.
Dr. William A. Mowry, Madison.

3:55 Discussion—Dr. Howard J. Lee, Oshkosh.
Dr. F. W. Madison, Milwaukee.

4:15 to 6:15 *FIVE ROUND TABLE SYMPOSIUMS—Rathskeller*

1. Allergy—Dr. Theodore L. Squier, Milwaukee.
2. Tuberculosis—Dr. Harold M. Coon, Stevens Point.
3. Gastro-Enterology — The Medical Management of Uncomplicated Cholelithiasis — Dr. Michael W. Skutkin, Milwaukee.

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4. Calcium Metabolism—Dr. Elmer L. Sevringhaus, Madison.
5. Cardiac Problems — Dr. Chester M. Kurtz, Madison.

6. SECTION ON RADIOLOGY. Beefeaters Room. Presiding: Dr. H. W. Hefke, Milwaukee, Chairman.
   - 2:15 Bone Case. Dr. L. V. Littig, Madison.
   - 2:25 Fracture of Carpal Scaphoid. Dr. F. H. Kuegle, Janesville.
   - 2:35 Case Report. Dr. F. W. Mackoy, Milwaukee.
   - 2:45 Cancer of Mandible. Dr. A. M. Dorr, Milwaukee.
   - 2:55 Case Report. Dr. F. C. Christensen, Racine.
   - 3:05 Aseptic Necrosis of the Hip. Dr. S. A. Morton, Milwaukee.
   - 3:15 Case Report. Dr. Theodore Sokow, Kenosha.
   - 3:25 (a) One Diagnostic Case. (b) One Therapeutic Case. Dr. E. A. Pohle, Madison.
   - 3:45 Case Report. Dr. I. E. Bowing, Kenosha.
   - 3:55 Foreign Body in Abdominal Cavity. Dr. R. L. Troup, Green Bay.
   - 4:05 Bone Syphilis. Dr. H. W. Hefke, Milwaukee.
   - 4:15 Angiography. Dr. John D. Camp, Rochester, Minnesota.

7. SECTION FOR ASYLUM PHYSICIANS. Popover Room. Presiding: Dr. Gilbert E. Seaman, Superintendent, Winnebago State Hospital, Winnebago, Chairman.
   - 2:15 Remarks by the Chairman.
   - 2:30 Preliminary Report of the Committee on Institutional Care of the State Society. Dr. A. W. Byran, Madison, Chm.
   - 2:55 Aspiration of the State Board of Control. John J. Hannan, President.
   - 3:25 Needs for Closer Cooperation Between State and County Institutions. Dr. M. K. Green, Mendota.
   - 3:45 Making the County Asylum a Hospital-In-Fact. Dr. H. H. Christofferson, Colby.
   - 4:05 A Qualified Personnel. Dr W. F. Lorenz, Madison.
   - 4:30–5:00 General Discussion.

The Rathskeller, Memorial Union.

6:45 P. M. Annual Dinner (Informal) Ballroom, Hotel Loraine.
Guest Speaker—Dr. Morris Fishbein, Editor, Journal of the American Medical Assn., Chicago.
Dancing.

FRIDAY, SEPTEMBER 11

8:00 A. M. Registration and exhibits open, Memorial Union.

8:30 CHEST SYMPOSIUM. Great Hall. Presiding: Dr. Joseph W. Gale, Madison.
   - 8:30 Carcinoma of the Bronchus and Its Surgical Treatment. Dr. Nathan A. Womack, St. Louis, Missouri.
   - 8:55 Discussion—Dr. John L. Yates, Milwaukee.
   - 9:05 Bronchiectasis. Dr. John Alexander, Prof. Surgery, University of Michigan Medical School, Ann Arbor. Michigan.
   - 9:30 Discussion—Dr. R. D. Thompson, Wisconsin State Sanatorium, Statesan; Dr. Forrester Raine, Milwaukee.
   - 9:40 The Treatment of Pulmonary Abscess (Case Reports from the State of Wisconsin General Hospital). Dr. Peter A. Midelfart, Madison.
   - 10:05 Discussion—Dr. Herbert H. Christensen, Wausau.
   - 10:15 *Recess Demonstrations in Scientific Exhibits.*

8:45 SYMPOSIUM ON NEPHRITIS. Tripp Commons. Presiding: Dr. Louis M. Warfield, Milwaukee.
   - 8:45 Phases of Edema in Nephritis. Dr. Francis D. Murphy, Milwaukee.

9:05 Nephritis from the Standpoint of the Insurance Companies.

Dr. D. E. W. Wenstrand, Milwaukee; Dr. Roy Benton, Milwaukee.

9:25 The Cyanate Therapy of Hypertension.

Dr. M. Herbert Barker, Chicago, Illinois.

9:55 Discussion opened by Dr. W. D. Coventry, Duluth, Minnesota.

10:15 *Recess—Demonstrations in Scientific Exhibits.*

10:30 General Session, Great Hall, President R. M. Carter, presiding.

10:30 Motion Picture Demonstration and Discussion of Interesting Pediatric Cases.

Dr. H. Kent Tenney, Madison.

10:50 Discussion opened by Dr. King C. Woodward, Rockford, Illinois.

11:00 Removable Internal Fixation After the Reduction of Certain Fractures, by the Use of a Beaded Wire.

Dr. James E. M. Thomson, Lincoln, Nebraska.

11:30 Treatment of Carcinoma of the Rectum in the Inoperable Case by Electrocoagulation.

Dr. James A. Johnson, Assoc. Prof. Surgery, University of Minnesota Medical School, Minneapolis, Minnesota.

1:25 P. M. General Session, Great Hall.

1:25 Installation of Dr. Stephen E. Gavin, Fond du Lac, as President and thereafter presiding.

1:30 Injection Treatment of Hernia.

Dr. Arthur F. Bratrud, Minneapolis, Minnesota.

2:00 Pyuria in Children.

Dr. Meredith F. Campbell, New York City.

2:30 Imperforate Anus.

Dr. Stanley J. Seeger, Milwaukee.

2:50 Discussion by Dr. Eben J. Carey, Milwaukee, and Dr. Gregory Connell, Oshkosh.

3:10 Practical Considerations in the Treatment of Colonic Carcinoma. (Illustrated.)

Dr. C. F. Dixon, Asst. Prof. Surgery, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minnesota.

4:00 Adjournment.

PROGRAM SYNOPSIS

Tuesday, September 8

M.
12:00 Council, Hotel Loraine

P. M.
7:00 House of Delegates, Hotel Loraine

Wednesday, September 9

A. M.
8:00 Registration—Exhibits open, Memorial Union
9:00 Joint General Session with Cancer Institute
10:20 Recess—Demonstrations in Scientific Exhibits.
10:40 General Session

P. M.
1:30 Demonstrations in Scientific Exhibits
2:00 Joint General Session with Cancer Institute
3:20 Recess—Demonstrations in Scientific Exhibits
3:40 General Session
6:45 House of Delegates, Great Hall, Memorial Union
8:30 Medical Economics, Great Hall, Memorial Union
9:00 Smoker, Rathskeller, Memorial Union

Thursday, September 10

A. M.
8:00 House of Delegates, Hotel Loraine
8:30 General Session, Great Hall, Memorial Union
9:55 Recess—Demonstrations in Scientific Exhibits
10:10 General Session

M.
12:00 Twelve Round-Table Luncheons, Hotel Loraine

P. M.
1:45 Recess
2:15 Sections on—
Obstetrics and Gynecology
Radiology
Surgery
Asylum Problems
Urology
Eye, Ear, Nose, and Throat
Medicine 2:00 to 4:00
Five Round-Table Symposiums, Rathskeller. 4:00 to 6:00
6:45 Annual Dinner, Loraine Hotel. Informal
Address: Dr. Morris Fishbein, Editor, Journal of American Medical Association, Chicago.
Dancing.

Friday, September 11

A. M.
8:30—10:15 Symposium on Chest
8:45—10:15 Symposium on Nephritis
10:15 Recess—Demonstrations in Scientific Exhibits
10:30 General Session

P. M.
1:25 Installation of President
1:30 General Session
4:00 Adjournment

Program for Cancer Institute Arranged; Two-Day Session to Precede State Meeting

MONDAY, SEPTEMBER 7

Service Memorial Institute
Room 230

9:15 Address to Visitors, Faculty and Medical Students.
Glenn Frank, President, University of Wisconsin, Madison, Wisconsin.

9:30 CANCER AND INHERITANCE
The Influence of Extrinsic Factors in the Development of Induced Tumors in Animals.
Dr. Leiv Kreyberg, University of Oslo, Oslo, Norway.

10:15 The Influence of Intrinsic Factors in the Development of Tumors in Mice.
Dr. C. C. Little, Director, Roscoe B. Jackson Laboratory for Cancer Research, Bar Harbor, Maine.

11:00 Familial Occurrence of Cancer.
Dr. Madge Thurlow Macklin, Associate Professor of Histology and Embryology, University of Western Ontario, London, Ontario.

2:00 CANCER AND INHERITANCE

Service Memorial Institute
Room 230

Hormones and the Development of Atypical Growths and Malignant Tumors.
Dr. Edgar Allen, Professor of Anatomy and Chairman of Department, Yale University Medical School, New Haven, Connecticut.

2:45 Carcinogenic Substances in the Production of Tumors in Laboratory Animals.
Dr. H. B. Andervont, Biologist, U. S. Public Health Service, Boston, Massachusetts.

3:45 ROUND TABLES

1. DIAGNOSTIC PROBLEMS IN THE RECOGNITION OF EARLY CANCER

Room 230

Dr. S. P. Reimann, Leader, Pathologist and Director of the Research Institute of the Lankenau Hospital; professor of Experimental Pathology in the Graduate School of the University of Pennsylvania, Philadelphia, Pa.
Dr. Emil Novak, Associate Gynecologist, Johns Hopkins Medical School, Baltimore, Maryland.
Professor Henry Coutard, Chief of the Department of X-Ray Therapy for Cancer, Radium Institute of the University of Paris, Foundation of Curie, Paris, France.

2. GENETICS — INHERITANCE AND CANCER

Room 506

Dr. Leiv Kreyberg, University of Oslo, Oslo, Norway.
Dr. C. C. Little, Director, Roscoe B. Jackson Laboratory, Bar Harbor, Maine.
Dr. Madge Thurlow Macklin, Associate Professor of Histology and Embryology, University of Western Ontario, London, Ontario.

3. FILTERABLE VIRUSES AND CANCER

Room 301

Dr. J. B. Murphy, Leader, Director of Cancer Research, Rockefeller Institute for Medical Research, New York City.
Professor B. M. Duggar, Professor of Physiological and Applied Botany, University of Wisconsin, Madison, Wisconsin.

MONDAY EVENING, SEPT. 7

Service Memorial Institute
Room 230

Broadcast 8:00 p. m. to 9:00 p. m. over WIBA, Madison, 1280 Kilocycles.

8:00 CANCER, A PUBLIC HEALTH PROBLEM
Dr. James Ewing, Professor of Oncology, Cornell University Medical College; Memorial Hospital for the Treatment of Cancer, New York City.

TUESDAY, SEPTEMBER 8

9:00 SERVICE MEMORIAL INSTITUTE

Room 230

The Influence of Wave Length on the Biological Action of Radiation.
Dr. Gioacchino Failla, Physicist, Cancer Memorial Hospital, New York City.

10:00 The Reaction of Tissue Cells to Irradiation.
Professor Henry Coutard, Chief of the Department of X-Ray Therapy for Cancer; Radium Institute of the University of Paris; Foundation of Curie, Paris, France.

11:00 Tissue Culture in the Study of Cancer.
Dr. Warren H. Lewis, Department of Embryology, Carnegie Institution of Washington, Baltimore, Maryland.

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2:00 SERVICE MEMORIAL INSTITUTE

Room 230

The Biology of the Cancer Cell.

Dr. S. P. Reimann, Pathologist and Director of the Research Institute of the Lankenau Hospital.

Professor of Experimental Pathology in the Graduate School of the University of Pennsylvania, Philadelphia, Pa.

2:45 Filterable Viruses in Malignant Neoplasms.

Dr. J. B. Murphy, Director of Cancer Research, Rockefeller Institute for Medical Research, New York City.

3:45 ROUND TABLES

1. SURGERY AND IRRADIATION IN THE TREATMENT OF CANCER

Room 230

Professor Henry Coutard, Leader, Chief of the Department of X-Ray Therapy for Cancer, Radium Institute of the University of Paris, Foundation of Curie, Paris, France.

Dr. Gioacchino Failla, Physicist in Charge of Radiology, Cancer Memorial Hospital, New York City.

Dr. Emil Novak, Johns Hopkins Medical School, Baltimore, Maryland.

2. CYTOLOGY OF MALIGNANT NEOPLASMS

Room 506

Dr. James Ewing, Leader, Professor of Oncology, Cornell University Medical College, Memorial Hospital for the Treatment of Cancer, New York City.

Dr. S. P. Reimann, Pathologist and Director of the Research Institute of the Lankenau Hospital; Professor of Experimental Pathology in the Graduate School of the University of Pennsylvania, Philadelphia, Pa.

Dr. Warren H. Lewis, Department of Embryology, Carnegie Institution of Washington, Baltimore, Maryland.

3. ETIOLOGY OF CANCER

Room 301

Dr. H. B. Andervont, Leader, Biologist, U. S. Public Health Service, Boston, Massachusetts.

Dr. J. B. Murphy, Director of Cancer Research, Rockefeller Institute for Medical Research, New York City.

Dr. Edgar Allen, Professor of Anatomy and Chairman of Department, Yale University Medical School, New Haven, Connecticut.

TUESDAY EVENING, SEPT. 8

Open to the Public

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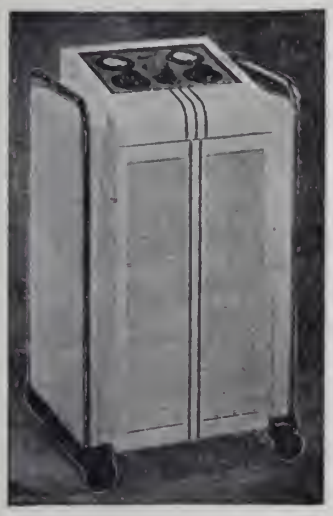

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THE JOURNAL BOOK SHELF

BOOKS RECEIVED FOR REVIEW

Microbiology and Pathology for Nurses. By Charles F. Carter, M.D., director of Carter's Clinical Laboratory, Dallas, Texas. C. V. Mosby Company, St. Louis, 1936. Price $3.00.

Arthritis and Rheumatic Disease. By Maurice F. Lautman, M.D., consultant to the United States Public Health Service Clinic and director of the department for the study of arthritis. Whittlesey House, McGraw–Hill Book Company, New York, 1936. Price $2.00.

An Introduction to Materia Medica and Pharmacology. By Hugh Alister McGuigan, M.D., professor of materia medica, pharmacology and therapeutics, University of Illinois, College of Medicine, Chicago. C. V. Mosby Company, St. Louis, 1936. Price $2.75.

A Textbook of Pathology. By W. G. MacCallum, professor of pathology and bacteriology, The Johns Hopkins University, Baltimore. Sixth edition, entirely reset. W. B. Saunders Company, 1936. Cloth $10.00.

Physician, Pastor and Patient. By George W. Jacoby, M.D., past president of the American Neurological Association and the New York Neurological Society. Paul B. Hoeber, Inc., New York, 1936. Price $3.50.

A Preface to Nervous Disease. By Stanley Gobb, M.D., psychiatrist in chief, Massachusetts General Hospital. William Wood and Company, Baltimore, 1936. Price $2.50.

A Diabetic Manual. By Edward L. Bortz, M.D., chief of medical service B, The Lankenau Hospital, Philadelphia. F. A. Davis Company, Philadelphia, 1936.

Recent Advances in Genito–Urinary Surgery. By Hamilton Bailey, F.R.C.S., surgeon, Royal Northern Hospital, England, and Norman M. Matheson, M.R.C.P., surgeon, Central Middlesex County Hospital, England. P. Blakiston's Son & Co. Inc., Philadelphia, 1936.

Lectures on Conditioned Reflexes. By Ivan P. Pavlov, M.D., director of the physiological laboratories, foreign member Royal Society, translated from the Russian by W. Forsley Gantt, M.D., coworker in Prof. Pavlov's laboratory, Institute of Experimental Medicine. Liveright Publishing Corporation, New York, 1936. Price $3.00.

The Rockefeller Foundation Annual Report, 1935. 49 West 49th Street, New York.

New and Nonofficial Remedies, 1936. American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

A Textbook of Histology. By Joseph Krafka, Jr., M. D. Professor of Microscopic Anatomy, University of Georgia, School of Medicine, Augusta. Williams and Wilkins Company, Baltimore, 1936. Price $2.50.

This book was designed by the author as a general elementary textbook of histology for students of biology, physiology, social sciences and laboratory technique. The subject matter is divided into 36 chapters and each is treated in a very concise manner. The text is illustrated with original line drawings of a semidiagrammatic type mostly of a low power type. The chief danger with a generalized brief textbook of a specific science is that it creates wrong impressions in the untrained mind. Some of the chapters are clear but others are ambiguous. For example, he lists the three salivary glands, the parotid, submaxillary and sublingual and numerous small glands scattered throughout the mouth and pharynx. Then he writes: "The salivary glands are compound alveolar glands in which two types of acini are found—the mucous and the serous."—"In the 'mixed' glands both types of acini occur in separate lobules. Occasionally individual acini may show cells of both types." In a drawing of a submaxillary gland of man this condition of separate mucous and serous lobules is depicted. The mucous lobule showing 15 acini has only one acinus with a demilune. This certainly is not typical for a submaxillary gland of man. Then, too, the parotid does not fit into this picture.

Again in the section on blood vessels he devotes two and one-half pages to the aorta, three-fourths of a page to the rest of the arteries and two and one-half pages to capillaries and nine lines to veins. After describing the aorta he classifies the rest of the arteries into conducting (elastic), distributing (muscular), and arterioles. The question of size and function is omitted in the discussion of this classification.

These examples point out the fact that in the treatment of an exact science accuracy is lost when an attempt is made to generalize.

It would seem advisable in the teaching of an undergraduate course in histology that emphasis be laid on technique, cytology, and tissues, and that organology be left until such a time when it could be studied accurately. A knowledge of cytology and tissues is fundamental and essential to an understanding of organology and pathology and yet in this book only

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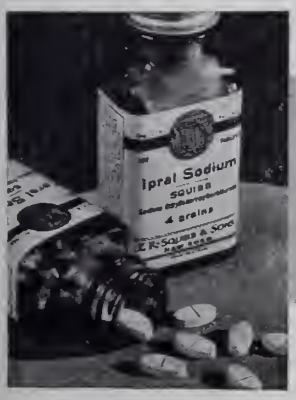

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56 pages out of 232 are devoted to it. In conclusion may I state again that in an exact science generalizations often lead to misconceptions. T. H. B.

Diseases of the Respiratory Tract. Clinical lectures of the Eighth Annual Graduate Fortnight of the New York Academy of Medicine. By twenty-one contributors. W. B. Saunders Co., Philadelphia. Cloth. $5.50 net.

To those not privileged to attend the Academy, this book brings to the reader recent developments in the field of respiratory diseases. Each particular topic discussed will probably bring to most physicians some knowledge not formerly possessed. Of far-reaching clinical significance is the dissertation on "Atelectasis, Massive Collapse and Related Post-operative Conditions." The presence of muscle tonus (vitality) and its absence (depression) in the production of the above-named conditions is well developed.

Of interest is the fact that diseases of the respiratory tract account for more illness and deaths than any other system, except the heart and great vessels; of importance is the fact that respiratory ailments occur so frequently in conjunction with other diseases. Because of these facts physicians, regardless of their specialties, should find that by taking advantage of the experience and opinions of these able contributors, their time has been well spent. R. H. S.

Cardiovascular Disease. By J. H. Schrup, M. D., Dubuque Iowa.

This booklet presents a novel and, as its author fears, rather "ideal" method of treatment of cardiovascular disease, this method consisting of urethral and ureteral dilatations—"mechanical" treatment—many in number.

Starting with "urinary vs. intestinal tract," its comparative lesions and functions, likening the structures of the former to a watch and the latter to a clock, emphasizing the greater concern for derangements of the latter and decrying "the professional apathy and aversion of treatment" of the former, the author tells of his European and World War background which led to his discovery of the importance of urological treatment in cardiac and arterial disease and cites seven of a group of 200 cases obviously improved by this method. He then discusses his lack of corroborating evidence, such as x-ray and electrocardiography, to strengthen his clinical experiences, touches on the probable bacterial etiology of these "locally mild and mostly symptomless lesions with, too often, no urinary findings," outlines his mechanical treatment and makes a plea for trial and corroborative investigation.

The author's enthusiasm and the stimulative novel idea makes this booklet worth reading. H. H. S.

Clinical Heart Disease. By Samuel A. Levine, M. D., F. A. C. P. Assistant Professor of Medicine, Harvard Medical School; Senior Associate in Medicine, Peter Bent Brigham Hospital, Boston; Consultant Cardiologist, Newton Hospital; Physician, New England Baptist Hospital, Boston.

This book represents a good review of the modern status of knowledge of cardiac disorder. It is written in a simple, concise style, which bespeaks a cooperative attitude on the part of the author, and will appeal to the practical-minded practitioner. General scientific knowledge is reenforced by personal opinion and personal experience. It appears that the author has a good understanding of general medical problems, and the various forms of heart disease are well correlated with the same.

Total thyroidectomy as a treatment for chronic heart failure and for angina pectoris is discussed in convincing style, despite the fact that it is not as yet a generally accepted procedure. In similar manner, the author assumes that it is the prevailing opinion that hyperthyroidism in itself does not cause permanent heart damage. No mention is made of the use of the venous pressure as a guide to venesection, and oxygen therapy is not included in the treatment of decompensation.

The reader will be well impressed with the practical advice rendered in regard to the evaluation of cardiac patients as surgical and obstetrical risks and in regard to prognostic factors. A lengthy chapter on electrocardiography includes good correlation with clinical findings. The chapters on rheumatic fever are excellent and are a credit to the general medical aspects of the problem as well as the cardiac. It is felt that the book would be a worthy addition to the physician's library. E. M. B.

SYPHILIS AND CARCINOMA

(Continued from page 727)

lida can be demonstrated even under ideal conditions in the gummatous and infiltrative lesions of tertiary syphilis is well known. This criterion is probably too severe and unnecessary for a diagnosis of this condition. Other criteria reasonably sufficient for the diagnosis have been suggested by Harris and Youmans.[4] These include:

1. Evidence of organic disease of the stomach which on x-ray is indistinguishable from carcinoma.

2. The presence of other evidence of syphilis.

3. Qualified improvement under anti-syphilitic treatment.

4. In cases operated upon, demonstration of tissue changes compatible with syphilis.

Only a few of the more interesting statistical reports of incidence will be cited.

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1. In approximately 3,000 cases of syphilis studied at Vanderbilt University Hospital there were 7 cases in which the above criteria were met. This shows the relative rarity of the condition, the incidence here being about 0.2%. These writers point out that the incidence is so low it is quite possible that physicians in general practice or even gastroenterologists may never encounter such cases.[4]

2. In the Emory University medical wards in 3,500 admissions 8 cases of syphilis of the stomach have been found. These figures are especially interesting because of the type of material in such a hospital.[4]

3. Chiari is reported to have found only 2 cases of syphilis of the stomach in 243 autopsies on advanced syphilitics.[5]

4. Of 3,000 patients admitted to the Charity hospital in New Orleans between 1919 and 1928 with a primary diagnosis of syphilis, only 5 were classified as having probable gastric syphilis.[5]

5. Fitts, from studies of southern negroes among whom he estimates an incidence of syphilis approximating 75%, reports no syphilitic lesions of the stomach in 500 autopsies.[6]

6. Stokes reports that of 200 patients with syphilis who complained of gastric trouble, only 8 (4%) had true syphilis of the stomach.[3]

Eusterman[7], however, basing his conclusions on observations on 93 cases at the Mayo Clinic, concludes that gastric syphilis is not as rare as is generally supposed and confirms the impression that it simulates gastric carcinoma more frequently than any other lesion. He states that in all cases of syphilis in which a demonstrable gastric lesion is present regardless of roentgenologic type or extent, the condition should be regarded as syphilitic until it is proved otherwise. Also in O'Leary's[2] report from the Mayo Clinic in which 151 cases (selected from 25,000 patients with syphilis) with demonstrable gastric lesions were studied, it was found in a period of observation ranging from two to nine years that thirty-six had gastric carcinoma, and in eighty-nine a diagnosis of gastric syphilis eventually was made.

The criteria for differential diagnosis in a patient with serological or clinical evidence of systemic syphilis and a gastric lesion of the type illustrated are not clear cut. Age, and the presence or absence of cachexia, anemia, palpable gastric mass and retention are points to be considered. When the evidence favors a syphilitic lesion, or if because of extent or position by roentgen examination the lesion is believed inoperable if malignant, antisyphilitic treatment seems justified. The length of a trial period is a matter of debate. In the more advanced syphilitic lesions, any response to therapy may not be demonstrable within four to six weeks or even longer. It seems important that the possibility of this rather rare type of visceral syphilis be kept in mind.

SUMMARY

Two patients, both with serological evidence of systemic syphilis and one with clinical evidence as well, having similar gastric symptomatology, physical and roentgenological findings, are presented. The differential diagnosis between syphilis and carcinoma of the stomach is discussed.

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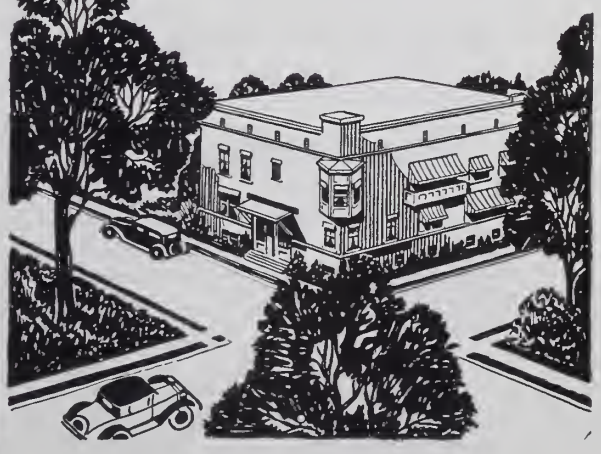

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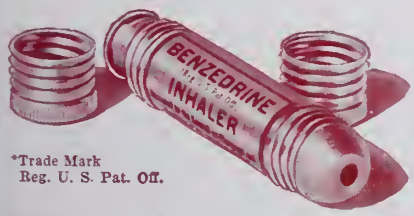

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IN THIS ISSUE

THE PRESIDENTIAL ADDRESS
By Stephen E. Gavin, M. D.
BRAIN TUMORS IN WISCONSIN
By John C. McCarter, M. D.
Mead Burke, M. D.
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STONE IN URETER
By Gershom J. Thompson, M. D.
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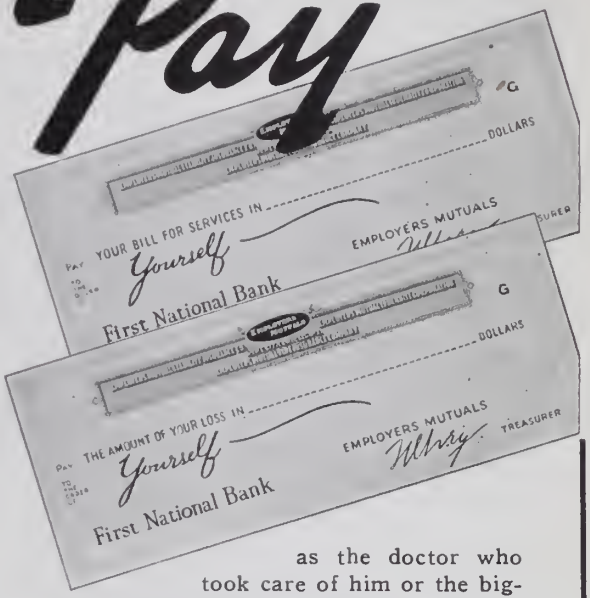

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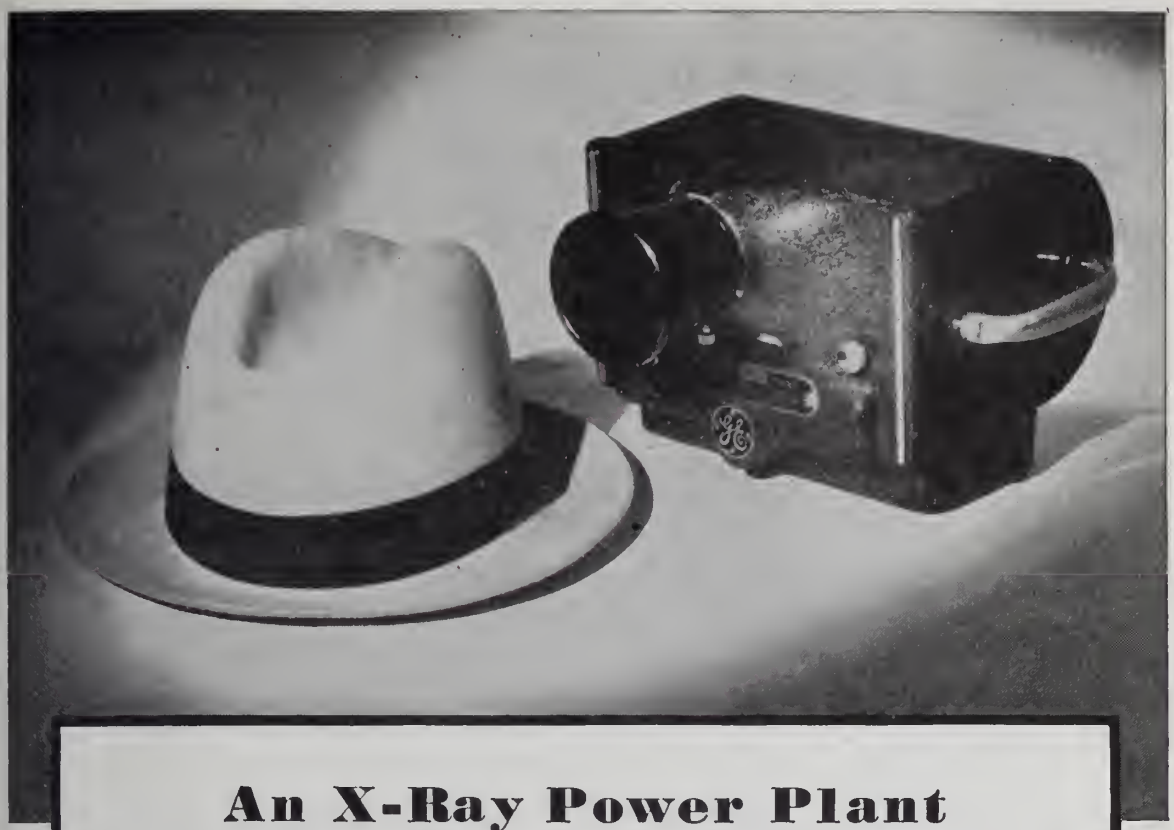

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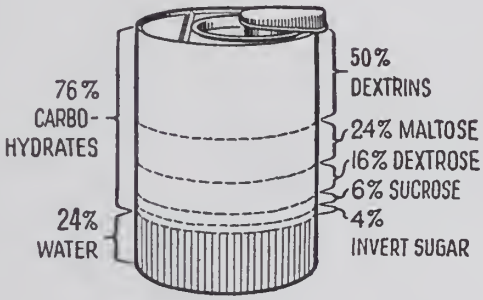

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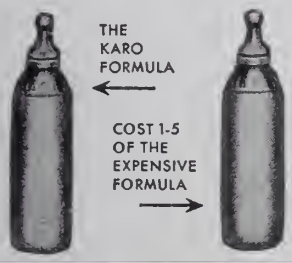

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As a direct result of many researches on vitamin concentrates, the chemical identity of the crystalline antineuritic factor has recently been described as a derivative of 6-aminopyrimidine (2).

It has been known for many years that vitamin B_1 may be destroyed by heat. In the canning procedure, a number of heat treatments of food may be involved, especially in the thermal "processing" of the product to insure its preservation. In the "process", many foods are subjected to a heat treatment after sealing in the can, to destroy spoilage organisms which may be present on the raw material. In other cases, the food is filled into the cans at a sufficiently high temperature to obtain the same result. Therefore, the question of the effect of the canning procedures on vitamin B_1 frequently arises.

The times and temperatures necessary for the processing of canned foods are governed by a number of factors, important among them being the pH of the food itself. Highly acid foods require only short heat processes at the temperature of hot or boiling water to destroy spoilage organisms. The so-called "non-acid" or "semi-acid" products require higher temperatures — usually 240° F. (116° C.).

As might be expected, acid foods have been found to suffer only a slight loss of vitamin B during canning (3).

The degree of retention of vitamin B_1 in the non-acid foods is not as high as in the acid foods. (4).

This is partly due to the heat treatments accorded them and possibly also to their low acidity, since the vitamin is more stable in acid media.

The facts in the case may be summarized briefly by the statement that commercially canned foods may be depended upon to supply vitamin B to extents consistent with the amounts of the vitamin originally present in the raw materials from which they were prepared. Because of their widespread use, canned foods contribute a notable amount of vitamin B_1 to the American dietary.

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(1) Vitamins: A Survey of Present Knowledge Medical Research Council, Special Report Series, No. 167, 1932. His Majesty's Stationery Office, London
The Vitamins H. C. Sherman and S. L. Smith 1931 Am. Chem. Soc. Monograph, 2nd Edition
(2) 1935. J. Amer. Chem. Soc. 57, 1701
(3) 1932. Ind. Eng. Chem. 24, 457
(4) 1932. J. Nutrition 5, 307

This is the seventeenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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★ *Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245*
Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154
N. Y. State Jour. Med., June 1935, Vol. 35, No. 11
Arch. Otolaryngology, Mar. 1936, Vol. 23, No. 3, 306-309

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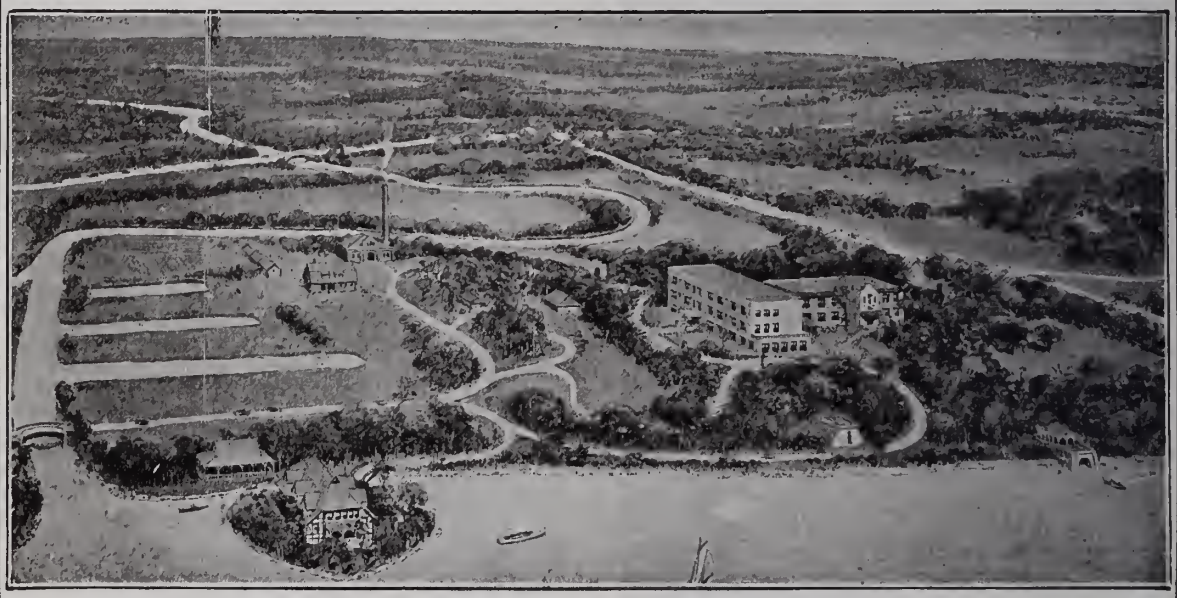

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The Presidential Address*

By STEPHEN E. GAVIN, M. D.
Fond du Lac

AT THE beginning of this address I want to express my deep feeling of appreciation to the State Medical Society of Wisconsin for the very great honor that has been conferred in selecting me to serve as President of the Society for the coming year. I have even a much greater sense of the responsibilities of the office, and a deep fear of personal limitations to satisfactorily perform the duties of that position, although, I will assure you, if desire and effort will aid in the accomplishment, neither will be spared.

In studying the Constitution and By-laws of the State Medical Society I find that it is mandatory for the incoming President to deliver an address. It is in compliance with this mandate that I am before you at this time, and not with any great desire on my part to inflict an address upon you. Possibly if the House of Delegates learns of this by-law it may be eliminated, particularly after this attempt. The only optional factor which must be decided prior to each annual meeting is the time that this event is to take place. This time has been bounced around so much in the past years that the members are somewhat confused, and many are caught unawares, and are exposed to the so-called presidential address. The exposure today, however, will be rather brief, the subject more or less hackneyed, and the thoughts and remarks perhaps trite. But nevertheless, because of its steadily increasing importance, I am going to talk on that which has done more to win the confidence and support of the public, and is at the present time the greatest potential influence in maintaining the present high plane of medicine,—The Family Physician. I speak of him not at all in the sense of eulogizing him, but in pointing out why he stands today as the greatest potential hope, both for the laity and the profession, and to suggest how these potential hopes may be realized.

I say "potential influence and potential hope" for at the present time or during the past decade or more, there has been an actual waning or diminution in the confidence and support of the public, and a lessening of the prestige of the profession, due to the rather peculiar attitude of both the profession and the laity toward the family physician or general practitioner. I do not intend to analyze all of the reasons for this changing attitude or to attempt to place the blame in its entirety, but the condition exists, and if we cannot find our way back in a large degree to the former method of practice of medicine, we will never regain our former position.

No one can ever sing the praises of the family physician too highly, but, as I have stated before, this is not a eulogy, as a eulogy is not necessary before this body. Most of the remarks that I make today, criticisms or otherwise, probably do not apply to a single man in this auditorium. They do apply to some members of the profession, and it is largely this portion of the profession that I propose to discuss.

While the family physician or general practitioner is the subject under discussion, I do not wish to be understood as indicating in any way that the large part of the profession that has entered the realm of special practice either by dint of hard, long study, prolonged special training, or even by independent or individual proclamation, has any particular monopoly on the virtues and saintliness of practice. Neither do I wish to convey the impression that some of this large

* Presented before the 95th Anniversary Meeting, State Medical Society of Wisconsin, Madison, Sept. 10, 1936.

and splendid part of the profession does not at times deviate from the best scientific and ethical principles of the practice of medicine.

A DUAL POSITION

The family physician occupies the peculiar dual position in our attack on disease of being in the first line of attack as well as constituting the mop-up squad. He must be prepared by thorough education and training to detect the first sign of an enemy attack, and better, to forestall the attack by thorough preparation and proper understanding of the habits and tendencies of the enemy, so that the onslaught may be entirely prevented. He must be able also to ferret out and mop up all of the foes that may be hidden or lurking in the dark trenches of ignorance, stubbornness and misinformation. It has been notorious in the past that the profession at times has not been sufficiently alert in sensing the splendid possibilities in the prevention of disease. We have been inclined to procrastinate to such an extent that laymen and lay organizations have undertaken the task of prevention. We have inspired their thinking but have failed to give direction to their action. These lay organizations sometimes have been the instrument that has awakened the profession from its lethargy in this respect, and stimulated its activities, till now I believe that the medical profession is thoroughly alive to the importance and necessity of prevention, and is willing and anxious to assume a continuous leadership in the great fight to eradicate disease. As has been stated before, the profession has become health-minded instead of disease-minded, and here, as in all other activities the family physician must and will play the leading role. If he assumes this role properly, which he must do if the medical profession is to maintain itself as the most important and vital factor in the health problems of the race, the incidence and the mortality and morbidity rate from the diseases that are now taking the greatest toll, will show a tremendous decrease within the next generation.

While I believe that at the present time there is a somewhat different feeling toward the general practitioner, we all remember that a very few years ago the situation had become so marked that it was with considerable embarrassment and great humility that a doctor would admit being a general practitioner or family doctor. This would be true either in a group of physicians or in a group of the laity,—both groups apparently feeling that there must be something radically wrong or something lacking in the poor doctor's ability that prevented him from becoming one of the rapidly growing varieties of specialists, consultants, office practitioners or what not, so evidently abroad in the land at that time.

That feeling is modified now, however. I feel quite sure, beginning a few years ago, about 1930 or 1931, this high-hatting began to lessen for many very obvious reasons. The general practitioner was again tolerated at medical meetings, and many who had left the ranks of general practice returned to the fold. The laity began to stabilize and with stabilization their sense of values again began to function and the family doctor is again the potential factor that he was prior to the above-mentioned phase in the practice of medicine.

OUR IMMEDIATE PROBLEM

If the position of the family physician is to be maintained or improved there are many things that must be accomplished by the profession, and I intend to discuss some of them at this time. Many of these require criticism of some of our profession for sins of commission and others for sins of omission. Whether we deserve and retain the respect and complete confidence of the public rests entirely with the profession.

The solution of every problem pertaining to our profession is entirely in our hands. We must face the fact that if anything transpires unfavorable or detrimental to the best interests of medical science or the public welfare, it is because we have permitted the trend mentioned above to develop while we fiddled.

Fully realizing that many of my remarks are platitudes, and that you all realize the truth of these statements, I nevertheless shall mention and discuss briefly some of the frequently encountered diseases that are evi-

dently often missed by the skirmishers in the front line, or overlooked by the mop-up squad; diseases wherein more care and attention or more thorough preparation in this type of warfare would have either prevented the attack or stopped it in its incipiency.

The first enemy or disease that I will discuss is cancer, which took nearly 4,000 lives in Wisconsin alone in 1935. Everyone in this room knows that the greatest hope we have at present of preventing cancer is for the family physician to convey to his families the proper information as to the avoidance and prevention and cure of chronic, prolonged irritations and inflammations wherever this can be accomplished, and the much more apparent necessity of his carrying to his families, in his frequent contacts with them, the proper information to enable them to appreciate early warning signs of beginning cancer, and the necessity of seeking immediate advice. *Most of all, by far,* is the importance, and I say this in all humility and fully realizing what I am saying, of the first medical contacts waking up, at least those who have been asleep at the switch, recognizing the early signs of cancer and giving their patients, who confide in and depend upon their family physicians, a chance for their lives by obtaining proper treatment while there is yet time. All cases, of course, that have gone beyond recall are not due to the negligence or ignorance of their family physician. Many go outside of the profession for advice and treatment; but from my own observation and knowledge I know that the vast majority of advanced cases have seen one or more physicians who have been either too busy, too tired or too something to make an adequate examination to determine the existence of a suspicious development. They were content to prescribe an ointment for the lip, a mouthwash for the tongue, or suppositories for rectal symptoms, or give a box of proprietary, glorified bicarbonate of soda from their supply of samples for a digestive disturbance. Some have been content to supply a tin box of black salve from the same source for something the patient felt in her breast, or give a douche powder for an unexplained vaginal discharge.

A considerable portion of the laity, by far the minority however, apparently has been better educated or is more on the alert to detect early signs of cancer than many medical men. It is up to the profession, if some of our present members are deficient in this respect, to wash our own linen, do the best we can with what we have, and keep hammering at it. With the proper, willing and anxious cooperation of our medical schools, Board of Examiners and other agencies that may become necessary to establish, we must see that no one, from now on, enters the practice of medicine who has not the proper training, knowledge and conception of this, as well as every other disease that can be prevented or cured if recognized early. Furthermore, it is just as necessary that, after obtaining that knowledge and training, the interest and desire and inclination are maintained during all the years of practice. The capable physician must be not only willing and anxious, but *insistent* upon thorough, adequate examinations at all times. It seems preposterous for me to stand before you and say these things, but they must be stressed. Most of the lapses or errors in diagnosis in this disease, as well as in most others, are due to inadequate or no examination, and no indictment on this point can be made too emphatic.

Tuberculosis is another disease, the final elimination of which depends upon the family physician. Here again the family doctor is the first point of contact. Upon *his* ability and willingness to make the proper examination will often determine the future, not only of that particular patient, but of many others who may be in contact with the original case. There is no other disease perhaps where the example of the first line of attack and mop-up squad is more appropriate than in tuberculosis.

The important position of the family physician and the necessity for his complete cooperation is being recognized by everyone interested in this problem. Pottenger, in the John W. Bell Lecture on Tuberculosis delivered under the auspices of the Hennepin County Tuberculosis Association at Minneapolis last December, states that:

"From a death rate for all ages of 200 per hundred thousand population in the United States in 1900 the rate has declined to about 60 per hundred thousand today. But this fails to tell the full story, for, while the average number of deaths for all ages is in the neighborhood of sixty, the death rate for males between the ages of twenty and sixty-five runs from 100 to 165 per hundred thousand population. . . . This high mortality during the productive period of life still makes tuberculosis one of the greatest foes to the human race.

"The situation is most gratifying if we compare only the mortality for all ages now with that of 1900; but it is distressingly unsatisfactory when we see that the death rate during the productive period of life is still so near the rate which held for the average of all ages in 1900. This enormous loss among the young adult population during the period of greatest usefulness stands as a special challenge to those who are intimately connected with the antituberculosis campaign."

In the concluding paragraph of his lecture he adds:

"As we face the future we visualize the general practitioner taking a much more intimate part in the tuberculosis program than heretofore. A whole-hearted cooperation on his part should insure a continuous decline in the morbidity and mortality from this disease."

Dr. Hoyt E. Dearholt in his paper presented before our last annual meeting at Milwaukee declared:

"The family physicians of this vast State of 50,000 square miles can, if they will, do a better job of suspecting and watching the prospective new cases year in and year out than any other conceivable agency."

Tuberculosis never will be completely eradicated until the family doctor himself and every other agency interested in the disease realizes that the final and ultimate victory over this enemy will be won only when the family doctor is so trained and so minded that he is able, willing and anxious to detect the first suggestion of the disease; has the knowledge to properly cope with the situation both as to the proper disposal and treatment of the patient, and, what is tremendously more important, the protection and constant, intelligent follow-up of all contacts over a proper period of time, or until all danger of the development of the disease is past.

I mention these two conditions particularly because they stand near the head of the list of enemies of the public health, and are splendid examples showing how greater knowledge, greater care, and, above all, greater thoroughness in examinations and treatment will result in increasing benefit to both the patient and the physician.

PREVENTION

Many other conditions should be mentioned where again more knowledge and more thoroughness in examinations and better care would do much to lessen suffering and disease, both from the standpoint of prevention as well as cure, thereby bringing about a closer and better contact between the patient and physician.

Disease of the heart, which at the present time leads all diseases as a cause of death, can be lessened to a large extent, first, by the family physician by word and deed, doing everything possible to prevent the infectious diseases in childhood by immunization in the pre-school age, and other methods that are known and must be thoroughly understood by every individual physician who comes in first contact with the child. Then if disease is not prevented, the physician must be prepared to recognize immediately an affected heart, and be able to give the proper advice so that the diseased heart will be properly protected, and given a chance to recover, or at least to maintain the patient in the best possible condition. His constant and intimate contact with the older members of the families in his care will enable him by advice and direction to prevent much of the tragic picture of the tremendous middle-age mortality that we have been witnessing.

The family physician must always be a leader in all health activities, preventive as well as curative. All health activities to be successful must have medical leadership and guidance, and it is up to the medical profession to assume this initiative and leadership. And who is better qualified, by the very na-

ture of his daily work and training, to extend this direction than the family physician, for the real job of prevention of the infectious diseases of childhood rests with him on account of his contact with the child of pre-school age.

Unless the family physician is familiar with all sides of prevention activity in elimination of the many diseases that are preventable, and has the knowledge, ability, inclination and desire to enable him to be the leading factor in efforts or campaigns toward prevention, the fight cannot be won. For instance, at the present time the campaign for the prevention of goiter, which has been carried on so splendidly and effectively, will fail in the complete fulfillment of its objects unless the family physician again carries the information into the home.

The elimination of social diseases should be largely in the hands of the family physician for reasons almost too obvious to discuss. While there are and have been splendid efforts on the part of government agencies, public health bureaus, institutes, etc., to control this most vicious enemy, little progress has been made. Until the family physician admits and accepts the problem as his, apparently little progress will be made. Again the necessity of supplying to his families the definite knowledge, and then establishing the proper treatment and management must become a responsibility of the family physician. The slimy form of this most insidious of all enemies of public health must be brought, in all its ugliness, into the purifying sunlight of publicity; publicity that must be directed and controlled by medical leadership. It is within the memory of many in this hall when consumption and cancer were practically secret diseases. Almost invariably when one became a victim of either of these diseases the family felt that it was a matter to be kept strictly under cover, and little progress was possible until this attitude changed, and these diseases were brought into the open. The same will be true when the so-called social diseases are treated in the same manner. It is perfectly obvious that the family physician is the logical one to take a much larger part in the dissemination of the danger, the prevention, and the cure of these diseases.

CONCLUSIONS

It is largely up to the family physician in the final analysis, if we desire the complete confidence of the laity, to take the initiative in correcting, eliminating or avoiding any abuses that may have in the past, or may in the future, creep into the practice of medicine. Ethical principles must be observed. Familiarity with the code of ethics and adherence to its principles will enable any physician to practice medicine in such a manner that he not only will maintain his own self-respect, but will maintain the respect and confidence of his fellow practitioners and the public.

The patient must not be exploited in any way. Rackets, if they exist, whether surgical, medical, financial, ampules, lamps, spectacles, relief or any other kind must be discouraged and stopped. It is not necessary or pleasant to go into greater detail on these matters, but let us not forget that the profession as a whole always receives the blame for the racketeering of the few.

The patient must never be placed on the auction block and sold to the highest bidder. The secret division of fees must be stopped. I quote from the address prepared by the late J. Tate Mason, then President of the American Medical Association, read before the general meeting of the annual session at Kansas City:

"The evil of secret fee splitting has never been fully abated. Economic necessity tends to increase this pernicious practice. It is time to warn again and to point out again that secret fee splitting is still as dishonest, as antisocial, as subversive of morals and as great an abuse of the fine confidential relations existing between physician and patient as it ever was. The patient and his illnesses and his operations are not a commodity for sale and barter among physicians."

The matter of special practice is one of vital importance to both profession and laity. Who is a specialist, and how will we know him? Who is the competent surgeon and how can the patient and even the family physician always know that a capable specialist

is selected? A move in this direction by the American Medical Association and the American College of Physicians is already under way, and I believe that in the near future the family physician and his patient will be certain that any specialist whom they may select has the actual ability to do what he, directly or by inference, claims he can do.

If there are any of these types of clouds in the medical firmament, action today by the family physicians of the country would assure us of a beautiful, clear dawn tomorrow, followed by continued fair skies in the future.

These and many other things that I have not time to even mention must be accomplished if we are to restore completely the cordial relationship between the medical profession and the laity that formerly existed. These are practical problems, not idealistic in any way, and can be solved in a practical manner under the present American system of the practice of medicine.

Many of the laity, at the present time, due to certain types of propaganda that have been spread during the past several years believe that there is a better method for the distribution of medical service than the present one. Some physicians think likewise. They believe that the ideal method has been discovered and that all that remains is to put it in operation. This position we know to be false and intolerable in this country.

Ideals are splendid. Specialization is absolutely necessary. All cannot or should not be family physicians,—but always remember that many times our idealistic tendencies, or our trend to specialization prevents us from obtaining a practical view of the everyday problems in medicine. With our eyes gazing upward, and attempting to reach the star of idealism, or the milky way of specialization, we may stumble over and pass by golden nuggets of opportunity for a fuller and richer service to sick and suffering mankind, and the recognition and understanding of these opportunities will not only re-establish, but will ever maintain the splendid relationship between the laity and our profession.

Brain Tumors in Wisconsin*

By JOHN C. McCARTER, M. D., and MEAD BURKE, M. D.
Department of Pathology, University of Wisconsin Medical School, Madison

OF ALL malignancies found on postmortem examination at the Wisconsin General Hospital, brain tumors rank first in frequency of occurrence. Since the majority of these cases have been referred here not by neurologists but by the general practioners of the state, it is believed that an abstract of the results of this survey, followed by a brief summary of the current pathological status of these tumors, may prove of value.

Over a span of eleven years from October, 1924, to October, 1935, 97 cases of brain tumor have been found on postmortem examination. During this same period 2,889 deaths have occurred and 2,033 autopsies have been performed (70.3% of deaths), of which 583 (28.6%) have revealed malignant tumors. The 97 brain tumors comprise 16.6% of these cancer necropsies.

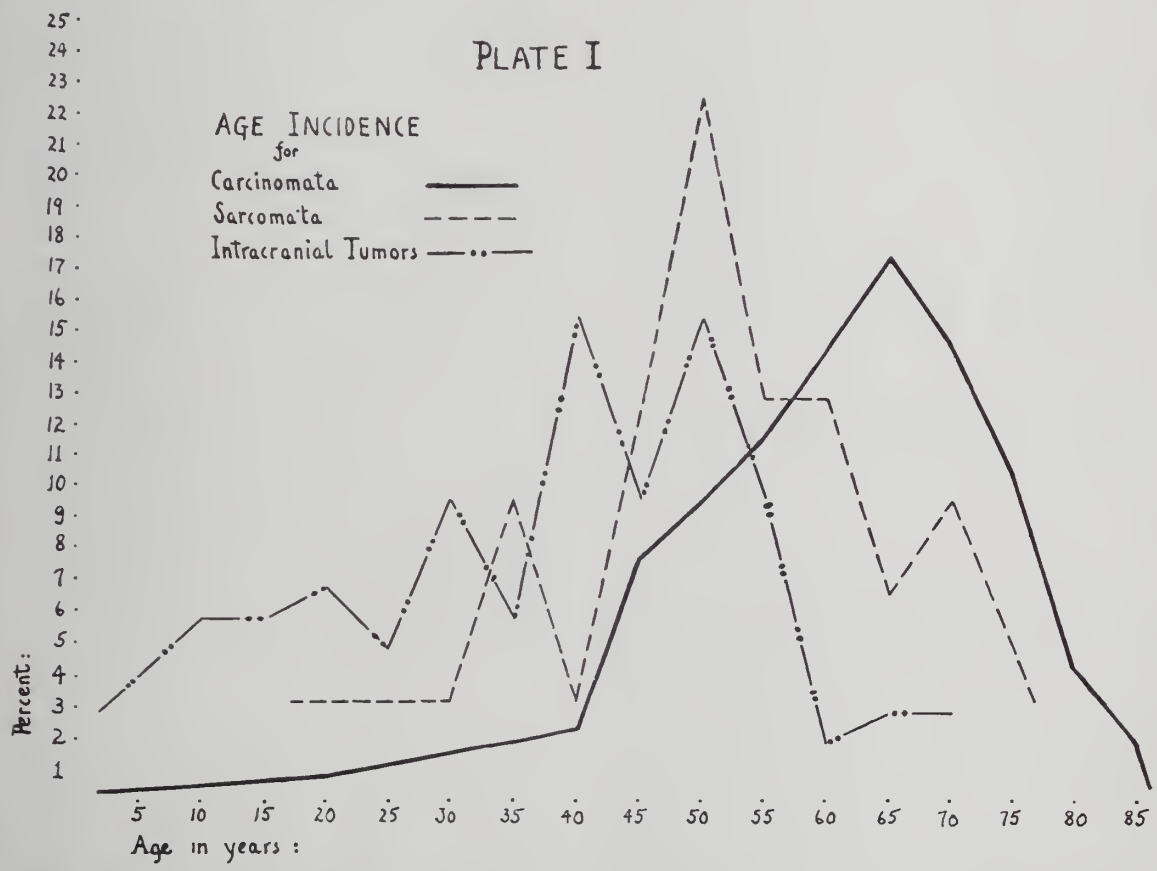
The high incidence (28.6%) of cancer—using the term loosely to include all malignant tumors—is a direct reflection of the selectivity of this hospital for such patients. Annually its admissions of cancer patients are the most numerous of any hospital in the state. At the University of Michigan Hospital the cancer incidence among all necropsies was found to be 30.0%; at the Mayo Clinic 31.7%. In contrast it was found to be only 14% at Cook County Hospital, Chicago, with brain tumors comprising but 3.2% of all cancer necropsies.

The high incidence (16.6%) of brain tumors among all cancers found at postmortem examination results from a combination of circumstances. Except in emergencies, only a very few surgeons in Wisconsin

* Aided in part by a grant from the Bowman Memorial Fund for Cancer Research.

do brain surgery. One-half of the operations listed in Table II as having been performed elsewhere were done either in Milwaukee or outside the state. Again, a large number of patients in the proper age groups for brain tumor (childhood and early adult life) are annually referred here because of obscure and confusing symptoms. Skill and methods of diagnosis (encephalography, ventriculography) and skill in treatment (extirpation) are available here.

Plate I is a graph of the age of incidence in this series of malignant epithelial neoplasms, sarcomata, and brain tumors. The curve for each of these three classes of tumors represents the percentage of the total of that class of tumor falling in the various age groups of five years. Thus the curve for sarcomata joins points in each five-year span of life representing the percentage of all sarcomata in this series occurring in that age group; and each curve represents 100% of



The steady rise of the recorded cancer rate in the United States has been usually attributed to two developments: 1. Better diagnosis. 2. Increase in number of persons reaching mature years. Only one of these developments—better diagnosis—applies to the increase in brain tumors. That the other development is not a factor is illustrated by the number of brain tumors found in the early age groups: 22 of the 97 cases occurred in the first two decades, and 82 before age 51. In the entire series of 583 cancer necropsies, 52% of those occurring before age 41 were brain tumors.

each of the three tumor classes. The curves of age incidence for the carcinomata and sarcomata compare closely with those reported by Weller[1,2] from his longer series. The curve for the intracranial tumors in our group agrees strikingly with that of the much larger series of Cushing.[3]

The consideration of age occurrence is an important one, as many brain tumors appear in infancy and childhood, and their occurrence in the later decades of life is infrequent. Physicians rightly associate the preponderance of carcinomata with the later decades of life, and instinctively consider cancer among

the diagnostic possibilities in such patients. However, this association cannot be applied to brain tumors; and younger patients with early vague symptoms and signs often go undiagnosed for considerable periods because their physician has entertained no thought of brain tumor. In other words, the entirely different age incidence curves for carcinomata and brain tumors have not come to the realization of the profession at large.

Table I

DIAGNOSIS OF 97 BRAIN TUMORS

Diagnosed at Wisconsin General Hospital by clinical methods	54	
(Of these first history taker (4th-year student) made 27)		
(And second history taker (intern) made 4)		
Diagnosed by ventriculogram	1	
Diagnosed by operation	1	
Diagnosed by biopsy	1	
Diagnosed by postmortem examination	10	
(Of these two cases died so shortly after admission as to prevent any clinical investigation.)		
		67
Diagnosed by referring physician before entrance to Wisconsin General Hospital	27	
Diagnosed by institutions outside the state	3	
		30
Total		97

In *Table I* are tabulated the records made in the matter of diagnosis. It is realized of course that both special facilities and special training for the diagnosis of difficult cases are available here and not to the general practitioner who sends in the majority of these cases. The fourth-year medical student, however, who routinely takes the first history and makes the first examination here, has only the same instruments at his command—percussion hammer and ophthalmoscope—as the referring physician.

Table II contains some comparative data on all persons in Wisconsin dying during the years 1932–33–34 on whose original death certificates the diagnosis of brain tumor was listed as the primary cause of death. The data are limited to a three-year period for two reasons. First, the task of reading all the death certificates of the 71 counties in the state required considerable time. Second, it was felt that the particular facts elicited by this task were definitely established by these three years and that an additional two or five years would further confirm but in no way alter these facts.

Table II

BRAIN TUMOR MORTALITY IN WISCONSIN
1932–33–34

Total number of cases in state	266
Total number treated at Wis. Gen. Hospital	54
Total number treated elsewhere	212
Total number of deaths from cancer in Wisconsin	10,833
(266 brain tumors equal 2.2%)	
Total number of deaths from cancer in Wis. Gen. Hosp.	367
(54 brain tumors equal 14.7%)	

Diagnoses

	Wis. Gen. Hosp.	*Elsewhere*
Confirmed by necropsies	39	37
Confirmed by operations	8	39
Clinical diagnoses only	5	136
Miscellaneous	2	
	54	212

(Note—If both an operation and a necropsy have been performed, only the latter is counted.)

Age Groups

	Wis. Gen. Hosp.	*Elsewhere*
0–10	7	16
11–20	9	17
21–30	10	19
31–40	10	30
41–50	11	38
51–60	5	44
61–70	2	31
71–80	0	16
81–90	0	1
	54	212

These data may be summarized as follows:

1. Diagnosis. In cases treated at the Wisconsin General Hospital the diagnosis was verified in 87% of cases by operation or necropsy. In cases treated elsewhere the diagnosis was thus verified in only 36% of cases.

It will be recalled that the Wisconsin death certificate contains three questions intended to clarify and confirm the diagnosis: "1. Was there an operation? 2. What test confirmed diagnosis? 3. Was there an autopsy?" In the group of 212 cases treated elsewhere, no answer has been made to question two on a great majority of the certificates, even when there has been neither operation nor autopsy. Of the answers that have been given, the following are illuminating

examples: "clinical," "laboratory," "paralysis," "usual test," and "hemiplegia." The last example was given in three cases all over age 75, and indicates the utter unreliability of such diagnoses.

In the same group in response to question one, the following answers are similarly illuminating: "Decompression," "trephine," "skull opened." Though operations and autopsies in this group total 76, only occasionally is the old term "glioma" encountered, and practically never a newer term of classification such as "medulloblastoma" or "astrocytoma." One cannot avoid the impression that many of these operations were merely palliative or exploratory at best, and did not contribute either to diagnosis or prognosis.

2. Age of Occurrence. In cases treated at the Wisconsin General Hospital, 87% were under age 51, and there were only two cases over age 60. In cases treated elsewhere during this same period, only 57% were under age 51, and there were 17 cases over age 70! This contrast is particularly striking when it is recalled that brain tumors predominate in middle age, are not uncommon in childhood, but are seen rarely in old age. In the light of current knowledge of brain tumors, the contrast in age distribution between these two groups of patients leads one inevitably to the conclusion that in the state of Wisconsin brain tumors are being overlooked in childhood and middle age, and are being diagnosed incorrectly in old age.

All intracranial neoplasms are potentially fatal. This is due to their location within a rigid bony cavity wherein their growth destroys more or less rapidly the delicate structures of the central nervous system. In view of their high relative number among all neoplasms—occurring more frequently than malignant tumors of any other organ in this series—they merit study and understanding by the profession at large. If physicians have in mind the occurrence of these neoplasms, use methods that will insure early diagnosis, and promptly refer such patients for surgery, it is possible that as good a record of increased life and permanent cures can be anticipated as for malignant neoplasms of other organs.

PATHOLOGY

An understanding of the pathology of this group of neoplasms is necessary for the confident knowledge that makes early diagnosis possible. The logical basis of classification at the present time is embryological and histogenetical. The early appearance of the medullary plate and the formation of the neural groove in the embryo are soon followed by the joining of the dorsal portions to form the hollow neural tube. As this ectodermal structure becomes separated from the somatic ectoderm, which closes the dorsal embryonic surface, another linear mass of neurectodermal tissue becomes separated from the dorsal edges to form the ganglionic crest. This tissue segregates into metameric masses, migrates ventrally to form the dorsal root ganglia, and after further migration the sympathetic ganglia and medulla of the adrenals. Meanwhile the neural tube by differential growth gives rise to the brain and spinal cord, which in spite of great changes retains the general outline of a simple hollow tube with the formation of the ventricles of the brain and the maintenance of the central canal of the spinal cord. It is to be noted that in general the greatest growth in the thickness of the tube is in the lateral portions, the midline portions remaining thin. Coincidentally with the growth of the neural tube, condensations of mesodermal tissues about it give rise to the meninges, blood vessels, and skeletal structures of the cranium and vertebral column.

The early neurectodermal tube is made up of a single layer of epithelial cells known as the medullary epithelium, and it is by proliferation and differentiation of these cells that the enormously complicated structure of the central nervous system with its neurones and supporting tissues is derived. The epithelial cells elongate to form primitive spongioblasts which are radially arranged about the neural tube lumen. From the primitive spongioblasts through a series of changes are derived the protoplasmic and fibrillary astrocytes, the supporting cells of first importance in the central nervous system. Those primitive spongioblasts remaining as lining of the central canal form the cells of the ependyma. Between the primitive spongioblasts soon ap-

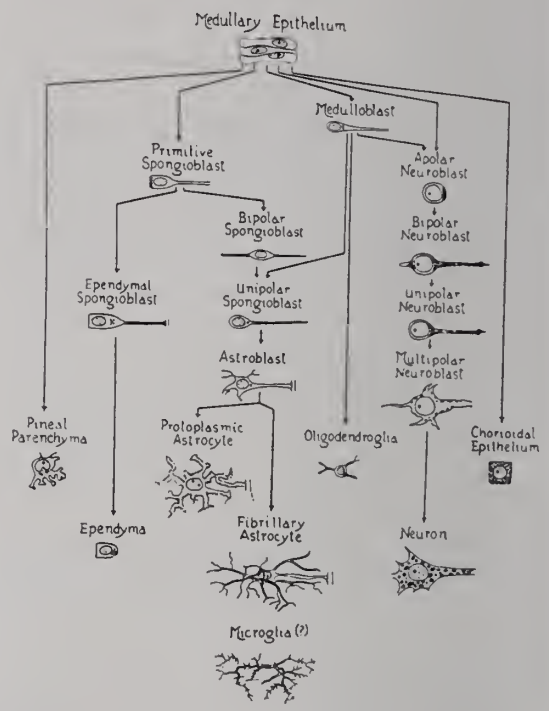
pear round vesicular cells which show many mitoses. Many of these cells differentiate into neuroblasts and through a series of changes into adult neurones, but others maintain their indifferent characteristics and are known as medulloblasts. The medulloblasts seem to retain the possibility of differentiation into either neuroblasts or spongioblasts. In addition they give rise to another important and numerous group of interstitial cells, the oligodendroglia. These cells have to do with the formation and maintenance of myelin sheaths within the central nervous system. In those portions of the neural tube where the chorioidal telas are formed, the primitive epithelial cells are directly transformed into the cubical chorioidal epithelium. In the roof plate of the diencephalon the medullary epithelium gives rise to the glial and parenchymal cells of the pineal body. Bailey[4] represents the histogenesis thus briefly recounted in *Plate II*.

Based on the histogenesis of the central nervous system Bailey and Cushing[5] proposed a classification of the tumors of the glioma group. This classification has proved fundamental and extremely useful in an ordered study of these neoplasms. They found that all of the cells enumerated in the above chart could be found in these tumors, and have named the tumors accordingly. It should not be expected that any one tumor will be made up exclusively of cells at one stage of development or of one type. However, most tumors of this group will have a majority or preponderance of one cell type. Again, in the case of the glioblastoma multiforme, the tumor may have relatively few bipolar spongioblasts, yet the authors feel that this tumor approximately corresponds in its behavior to cells at about this stage of differentiation. The following list gives the cell type and the corresponding tumor name in the Bailey and Cushing classification:

Medullary epithelium	Medulloepithelioma
Primitive spongioblast	Neuroepithelioma
Bipolar spongioblast	Glioblastoma multiforme
Unipolar spongioblast	Spongioblastoma polare
Astroblast	Astroblastoma
Astrocyte	Astrocytoma
Medulloblast	Medulloblastoma
Unipolar neuroblast	Neuroblastoma

PLATE II.

HISTOGENESIS OF CENTRAL NERVOUS SYSTEM



Neurone	Ganglioneuroma
Oligodendroglia	Oligodendroglioma
Ependyma	Ependymoma
Pineal gland	Pinealoma
Chorioidal epithelium	Papilloma chorioideum

Bailey and Cushing amply justify their classification by a clinical correlation with the pathological diagnoses. They point out that microscopical examination and classification of these tumors subserves not only better prognosis but improvement in operative procedures. In general the more dedifferentiated the cell type, the more malignant and rapidly growing the tumor, and the shorter the life expectancy. On the other hand, operations in the differentiated and slow-growing tumors give a great increase in length of useful existence.

FREQUENCY OF OCCURRENCE

In Cushing's[6] statistics covering 2,023 verified tumor cases, those of the above group (gliomata) comprised 42.6%, and in our series 59.8%. Within the group by far the most frequently occurring tumors were the astrocytomata, glioblastomata, and medullo-

blastomata in the order named. Our series also finds these three the predominantly occurring tumors, and for that reason a somewhat detailed discussion of their characteristics is justified.

The medulloblastoma is almost exclusively a tumor of children and of the posterior fossa. Usually arising in the middle of the cerebellum, it early invades the fourth ventricle and causes obstruction of the ventricular system. It exhibits a tendency, unusual in other intracranial tumors, to invade the subarachnoid spaces and to implant over all surfaces of the brain and cord. Grossly it is fairly firm and reddish grey, quite uniform in consistency and color, and rarely shows hemorrhage or cystic change. Microscopically it is made up of many small primitive cells with oval, hyperchromatic nuclei. Many mitotic figures are seen. Spongioblasts or neuroblasts or both may be found in sections. The tumor is rapidly growing and invasive, and with the unusual implantation metastases in the subarachnoid spaces, surgery is hopeless. The progression of symptoms is rapid, and in our series the average span of life after first symptoms was seven months. Irradiation will often control growth for some months.

The glioblastoma multiforme on the other hand is almost exclusively a tumor of the cerebral hemisphere in adults. It may arise anywhere in the cerebrum and it grows rapidly, invading and destroying the surrounding nervous tissue. It displays a tendency to invade most rapidly along the white tracts, and often crosses in the corpus callosum to the opposite hemisphere. This tumor may attain an enormous size. It is quite vascular and subject to much degeneration and necrosis, and the onset of symptoms may be sudden due to hemorrhage within the tumor. The type cell is the bipolar spongioblast, but all varieties of spongioblasts may be seen in section, and characteristically there is the formation of tumor giant cells. Mitotic figures are common. In our series the average length of life after inception of symptoms was ten months. The prognosis is very poor, as surgical extirpation is difficult due to indefinite tumor borders and recurrences are to be anticipated in all cases.

The third glioma is the astrocytoma. This is typically a slow-growing, indolent tumor with a tendency to undergo liquefaction and cyst formation. In such cysts a mural nodule of tumor tissue always persists. This tumor is relatively avascular. When an astrocytoma is situated in the cerebellum the onset of symptoms is usually during childhood, when situated in the cerebrum, symptoms appear later in adult years. The cell type is the well-differentiated astrocyte resembling the supporting cells of normal brain tissue. Mitotic figures are not seen. The average survival after first symptoms is considerably longer than in the more primitive-celled tumors above, and averaged 34 months in our series. It is these tumors particularly which give comfort to the neurological surgeon, for their extirpation is relatively easily accomplished, and when done the patient may survive indefinitely, recurrences not being anticipated.

For purposes of comparison, in *Table III* is tabulated the classification of intracranial tumors in Dr. Cushing's long series, with the figures from our series added. *Table IV* represents the break-down of the gliomata, and shows the predominance of the three tumors above described. In *Table III* we have not included the infectious granulomata from our series, and have included metastatic tumors in the brain from other sources only for the sake of comparison with the larger series.

Of course, all intracranial structures of other than neurectodermal origin may give rise to neoplasms. A brief survey of *Table III* will reveal that here again certain tumors predominate. In our series two stand out in frequency of occurrence, the meningiomata and acoustic nerve tumors. Other important tumors are the pituitary adenomata of various types, and the craniopharyngiomata which arise from epithelial vestigia along Rathke's pouch. A brief description of the first two might be useful.

The meningioma is known by several other names, among them endothelioma of the dura, psammoma, meningeal fibroblastoma. This tumor arises from the meninges and therefore is of connective tissue nature or mesenchymal origin. It is encapsulated and

Table III

FREQUENCY OF OCCURRENCE OF INTRACRANIAL TUMORS

	Cushing		*Wis Gen. Hosp.*	
	No.	*Per cent*	*No.*	*Per cent*
Gliomata (varia)	862	42.6	64	59.8
Pituitary adenomata	360	17.8	3	2.8
Meningiomata	271	13.4	11	10.3
Acoustic tumors (perineurial fibroblastomata)	176	8.7	7	6.5
Congenital tumors	113	5.6	8	7.5
Craniopharyngiomata				
Cholesteatomata and dermoids				
Chordomata and teratomata				
Metastatic and invasive tumors	85	4.2	10	9.4
Granulomatous tumors	45	2.2	--	--
Blood vessel tumors	41	2.0	2	1.9
Sarcomata (primary)	14	0.7	1	0.9
Papillomata of choroid plexus	12	0.6	1	0.9
Miscellaneous, unclassified and others	44	2.2		
	2023	100.0	107	100.0

Table IV

FREQUENCY OF OCCURRENCE OF GLIOMATA

	Cushing		*Wis Gen. Hosp.*	
	No.	*Per cent*	*No.*	*Per cent*
Astrocytoma	255	29.6	22	34.4
Glioblastoma multiforme	208	24.1	26	40.6
Medulloblastoma	86	10.0	6	9.4
Astroblastoma	35	4.2	1	1.6
Spongioblastoma polare	32	3.7	1	1.6
Oligodendroglioma	27	3.1	0	0
Ependymoma	25	2.9	0	0
Pinealoma	14	1.6	1	1.6
Ganglioneuroma	3	0.3	0	0
Neuroepithelioma	2	0.2	0	0
Unclassified	175	20.3	7	10.8
	862	100.0	64	100.0

relatively slowly growing, and causes neurological symptoms by pressure on nervous tissues and not by invasion. It may arise anywhere in the meninges but is commonly observed in areas where pacchionian granulations occur. The range in age of patients in this series was from 26 to 52. Histologically it is made up of cells of fibroblastic appearance arranged in whorls somewhat resembling pacchionian granulations. The average survival after onset of symptoms was 19 months. If larger blood channels, especially the venous sinuses of the dura, can be avoided, surgical extirpation is followed by an excellent prognosis, with some return of previously impaired neurological function.

The perineurial fibroblastoma, arising most commonly on the eighth cranial nerve, is also known as acoustic nerve tumor or acoustic neurinoma. It is a distinct tumor entity, and probably arises from the connective tissue sheath of the nerve as it enters the internal acoustic meatus. It is a fairly slowly growing and encapsulated tumor which causes symptoms by compression of nervous structures in the cerebello-pontine angle. Typically it is a tumor of adults, the average age of our cases being 42 years. Histologically there is a distinctive arrangement of elongated cells in palisades. The average period of survival in this group was found to be 20 months. The field is very difficult of operative approach, but successful removal of the tumor is followed by a very good prognosis.

SUMMARY

In a statistical survey of the autopsy series of the Wisconsin General Hospital covering eleven years from October, 1924, to October, 1935, it was found that the brain was the seat of neoplasms more often than any other organ. During this same period only two articles dealing with brain tumors and two case reports have appeared in the Wisconsin Medical Journal. Feeling that the subject was more important than is generally realized by the profession, the significant data from our series are herewith presented, together with a brief pathological discussion. With alertness to the possibility of brain tumor on the part of the general practitioner and promptness in referring such cases for surgery, it is not improbable that much more can be accomplished in Wisconsin in prolonging life and effecting permanent cures.

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The Biological Relationship Between Erysipelas and Scarlet Fever

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THE historical development of our knowledge of erysipelas and scarlet fever affords excellent material in contrasting clinical disease concepts. These two diseases afford little or no differential diagnostic difficulty to practicing physicians and are held in sharp contrast as being fundamentally dissimilar and yet both due to the same type of organism. That fundamental differences exist in both organism and host is particularly well illustrated by the usual permanent immunity established in scarlet fever, while in erysipelas the immunity is transitory and subsequent attacks are not infrequent. It would seem upon casual observation that these two diseases are distinct and separate entities with nothing commonly identical. Due to their distinct and separate causes, their association in close contact or in epidemic has occasionally been noted, but, nevertheless, is of rare occurrence.

Epidemiologically, they supposedly have nothing in common. There are no records in literature of a number of associated cases in which some patients had scarlet fever and some erysipelas, or in which several patients had both diseases at the same time. Thus Hektoen[1] stated, "The instances in which erysipelas has developed as a complication in scarlet fever are remarkably few. Of 5,416 cases of scarlet fever observed in recent years by Weaver[2], 6 were complicated with erysipelas, or 1 in 900. Of 48,366 cases of scarlet fever in the Metropolitan Asylum Board Hospital in London, 1,094 were complicated with diphtheria, 899 with chicken pox, 703 with measles, 404 with whooping cough, 550 with erysipelas (1 in 880), 11 with typhoid, and 1 with typhus fever."

Eleven experiences, however, in my own practice, I believe, must be considered of definite clinical significance. Protocols of intensive bacteriological and immunological studies of these eleven cases could not be carried out in support of the conclusions to be mentioned later. Nevertheless, my clinical experience affords me confidence in the accuracy of my observation and deductions.

CLINICAL CASES

Case 1—On January 31, 1931, Mrs. R. G., 60 years of age, entered the isolation hospital with a facial erysipelas. Her grandchild, L. W., 5 years of age, entered on the same day with an average case of scarlet fever. They were living together. The family physician informed me that the child's mother had died three days previously of an acute streptococcic septicemia. Both cases had a normal convalescence.

Case 2—Mr. C. B., male, 50 years of age, janitor of a public school, developed a frank facial erysipelas on February 1, 1932. Four days later a twelve-year-old daughter developed scarlet fever. No complications.

Case 3—On April 9, 1933, F. M., a two-year-old child was dismissed from the isolation hospital convalesced from scarlet fever. The mother was in attendance on the child, stating that, on April 10, the child developed a nasal discharge and swollen glands. On April 17, the mother, Mrs. L. M., 35 years of age, was brought to the hospital with a facial erysipelas. Average time for convalescence.

Case 4—A. M., 2 years of age, developed scarlet fever on December 6, 1934, remaining home under quarantine. On December 8, a four-year-old sister in the same family developed scarlet fever. On December 12, the mother, who was in attendance on these two children, came down with scarlet fever, and continued taking care of the above children and also a six-week-old nursing baby. On December 18, 1934, the six-week-old baby developed a facial erysipelas and the entire family was transferred to our hospital for further medical care. The scarlet fever patients and the erysipelas patient responded to human scarlet fever convalescent serum with uneventful recoveries.

Case 5—On October 11, 1934, J. O., 10-year-old boy was admitted to the hospital with a septic scarlet fever and an acute otitis media and mastoiditis. This infection necessitated a large dose of human convalescent serum. A mastoidectomy was performed with an uneventful recovery. The reason the boy was transferred to the hospital was that the father died of a malignant facial erysipelas contracted four days before the boy's first complaint

of a sore throat and the beginning of his scarlet fever. Investigations in the home revealed that the boy handled the hot compresses from his father's face. There was no other history of exposure.

Case 6—C. M., 12-year-old boy, was admitted to the hospital on January 6, 1935, with a frank scarlet fever. The mother, Mrs. J. M., 39 years of age, who attended the boy was admitted to the hospital on January 10, with a facial erysipelas. Both cases responded to human convalescent serum with uneventful recoveries.

Case 7—Miss N. K., 28 years of age, graduate nurse, developed a facial erysipelas on May 16, 1935, and was admitted to the hospital on our service that date. Her exposure occurred to a Miss G. B., 20 years of age, who had contracted scarlet fever on May 7, 1935, at the hospital in which the nurse was employed. Uneventful recoveries.

Case 8—On July 12, Miss M. R., graduate nurse, employed in a general hospital, was transferred to the isolation hospital with an average case of scarlet fever. Her history revealed a sore throat on July 10, fever, vomiting, and a rash on July 11. Convalescence uneventful, having received a therapeutic dose of convalescent serum. On July 4, she had been in attendance on a six-month-old baby who had an erysipelas which began about the genitalia and the lower abdomen. Inquiry about the child showed that it had a stormy convalescence.

Case 9—On July 8, 1935, Mrs. E. K., 50 years of age, was brought to the isolation hospital with a moderately severe facial erysipelas. A most satisfactory convalescence took place after a large dose of convalescent scarlet fever serum. She stated that on June 23, the illness of her grandchild was diagnosed as scarlet fever and that she volunteered to be in attendance and remained under quarantine with the child. The boy subsequently developed a rhinorrhea and swollen glands.

Case 10—E. G., 6 years of age, developed a septic type of scarlet fever on October 18, 1935. On October 21 he was taken to the isolation hospital. At that time he had a profuse rhinorrhea and an infected right ear. The mother, Mrs. V. G., 35 years of age, a full term case of pregnancy, was in attendance on this child at home. On October 26, she was diagnosed as a frank case of facial erysipelas and given two therapeutic vials of erysipelas antitoxin. On November 2, the onset of labor occurred and on November 3 she was delivered at her home. On November 4, the mother was transferred to the isolation hospital with a migrating facial erysipelas still present, spreading down the neck. She was given 40 c.c. of convalescent scarlet fever serum, and the child was also given 20 c.c. of convalescent scarlet fever serum. Both cases showed immediate response with no further complications.

Case 11.—Mrs. A. L., 65 years of age, January 6, 1936, had a severe sore throat, upper respiratory infection and remained ill until January 27. Miss B. L., daughter, developed a sore throat, a strawberry tongue, and a rash on January 16. She was transferred to the isolation hospital January 21, 1936. Responded to 40 c.c. of convalescent scarlet fever serum. On January 27, Mrs. L. B., daughter of Mrs. A. L., and sister of Miss B. L., having scarlet fever, developed a frank case of facial erysipelas beginning with a nose cold and treated until February 14. She remained at home. Her husband, Mr. C. B., 30 years of age, who was in attendance, on February 6, 1936, presented a frank case of scarlet fever and was transferred to the isolation hospital on February 7, responding to convalescent serum.

ANALYSIS

The eleven instances recorded here are not to be considered as illustrations of the complication of one of these diseases by the other, rather it is desired to draw attention to the occasional occurrence of one disease in the presence of a contact or exposure to the other. Recapitulation of these cases serves to emphasize the following:

Case 1 is of particular importance because of the three different clinical manifestations, apparently resulting from exposure to each other, the inciting organism being undoubtedly a virulent streptococcus. Case 5 is likewise of importance illustrating the virulence of the infection as indicated by the character of both the scarlet fever and the erysipelas, contact with which gave rise to the scarlet fever. Cases 7 and 8 illustrate the subsequent occurrence of erysipelas after exposure to scarlet fever, whereas cases 10 and 11 illustrate the development of scarlet fever after exposure to erysipelas.

Analysis of this small series of cases seems to indicate definitely that an individual in contact with scarlet fever may thereby develop erysipelas and that contact with erysipelas may result in scarlet fever. At least, this seems to have been true during a prevailing scarlet fever epidemic in the city of Milwaukee.

While my attention has chiefly been focused on erysipelas and scarlet fever, one of the cases (No. 1) reported illustrates that a third entity, namely, a streptococcus septicemia, resulted from erysipelas and scarlet fever is each of two contacts. The problem is not to be dismissed on the ground of differences in virulency, since a virulent fatal

case of erysipelas gave rise to a virulent form of scarlet fever with complications. These cases have been carefully checked so that no other contacts can be assumed. In some of them quarantine was carefully observed. It seems that this should have a direct bearing on the concept of the etiological agency of these two clinical conditions.

It is important to appreciate that several strains of streptococcus hemolyticus have been shown to have been intimately associated with scarlet fever, so that one might readily deduce therefrom that several strains of streptococcus hemolyticus can and do cause the clinical syndrome of scarlet fever (Tunnicliff[3] and Box[4]). This is likewise true of erysipelas (Birkhaug[5] and Symmers[6]).

So voluminous is the literature on the relationship of hemolytic streptococci to scarlet fever that it suffices here to mention only that this causal relationship has been so well established by the Dicks[7], and, as I have recorded in a previous communication[8], the work of Rossiwall and Schick[9], Dochez[10], Tunnicliff[11], Boente[12], Zlatgoroff[13], and Martelli[14]. Support in this direction is afforded by the biological tests for susceptibility as developed by Dick[15], Zingher[16], and Edwards[17], and the blanching and serological tests by Schultz and Charlton [18], Mair[19], and Langer[20]. Birkhaug[5] has shown streptococcus erysipelatis as causal for the clinical condition of erysipelas.

That the streptococcus hemolyticus scarlatinae and likewise the streptococcus causing erysipelas comprise several strains has already been mentioned. In this important observation lies possibly the explanation of the occurrence of such cases as have been reported here during a prevailing epidemic of scarlet fever.

The cycle of growth of several strains of streptococcus hemolyticus proved to have caused or to have been closely associated with scarlet fever suggests the possibility that certain strains under suitable circumstances mutate through a series of changes to or from what may be termed a parent or typical strain. Thus, Tunnicliff[21] isolated eight atypical strains which upon culture reverted back to the initial typical strains. It seems adequate to use the term "dissociation" with respect to this phenomenon. Very interesting and of considerable significance is the fact demonstrated by Tunnicliff[21] that the culture variables were paralleled by corresponding changes in the immunological properties. This seems to lead directly to the suggestion that if organisms related by certain basic common qualities may separate into distinctive strains by dissociation, possibly the host reaction to these different strains in these phases of dissociation may be different from the ordinarily expected reaction in response to infection by the organisms when considered from the group standpoint. More precisely, it suggests the possibility that if streptococcus hemolyticus causing scarlet fever at times dissociates itself into several sub-varieties, these strains may produce a clinical condition different from scarlet fever, and in this respect the development of erysipelas, after contact with scarlet fever, seems a likely clinical illustration.

EXPERIENCE

In my own experience of 5,742 cases of scarlet fever, I have not observed a single instance of erysipelas occurring during or after convalescence. This, combined with Hektoen's experience and others recorded in the literature, would seem to be clinical proof that a scarlet fever patient has little or no susceptibility to erysipelas. That is to say, it seems extremely likely that this clinical experience indicates that scarlet fever patients are not susceptible to the known established erysipelas-producing streptococci. These clinical findings seem to be somewhat at variance with the reports of Birkhaug[5], and Dick[15] of their failure to cross immunize for these two conditions. The rarity of the association of these two conditions need not therefore necessarily be accounted for by the development of immunity to specific strains but rather to the absence during a prevailing epidemic of scarlet fever of the strains of streptococci capable of producing erysipelas.

Tunnicliff[3] stated, "These nonspecific dissociated strains appear to correspond to the nonspecific hemolytic streptococci found around or associated with S. scarlatinae dur-

ing convalescence and in cultures from complicating lesions and described by Tunnicliff[22], Stevens and Dochez[23], Birkhaug[24], and Gunn and Griffith[25]. They did not belong to the groups of streptococci specific for scarlet fever as proved by agglutination, opsonification and toxin-neutralization tests that were considered by Stevens and Dochez as "secondarily invading" streptococci and by Gunn and Griffith as due to reinfections. Burton and Belmain[26] criticized the idea of reinfection with another type of hemolytic streptococcus and suggested that the streptococci may not be permanent and "may prove to be even more readily interconvertible" than pneumococci. This appears to be true from my experiments, which show that the nonspecific streptococci in scarlet fever appear to be dissociants of the original typical S. scarlatinae.

Tunnicliff stated further, "Since streptococci biologically differ from S. scarlatinae often present in complications, there are no antibodies for them in the serums of animal immunization with 'normal' scarlatinal streptococci, such complications might be benefited by the use of serums prepared against dissociated streptococci." Hecktoen stated, "It appears certain that dissociation may modify the antigenic as well as other properties of the stable state of an organism."

Now then, if the specific streptococci become dissociants and in this state cause other types of infection due to changed antigenic properties, then the above statement of Tunnicliff would support the use of serums prepared against dissociant diseases. Is it not plausible to state that some of the complications of scarlet fever, erysipelas, puerperal sepsis, rheumatism and septic sore throat are caused by dissociant streptococci? This answer would suggest, further, that the convalescent serum from these patients must necessarily have antibodies of better therapeutic value than any possible prepared animal serum. On this basis I used pooled convalescent scarlet fever serum in my cases with the results recorded.

Recently Keefer and Spink[27], Spink and Keefer[28], contributed the various serologic reactions that occur during and after hemolytic streptococcus infection. They investigated the antistreptolysins, antifibrinolysin and streptococcidal power of the whole defibrinated blood. Editorial statement[29], "In view of the multiple serologic reaction demonstrable in patients with hemolytic streptococcus infection, it is difficult to decide which responses are the more important in bringing about recovery. Recovery probably results from a summation of a variety of responses that are capable of keeping the infection process localized and destroying or limiting the growth of the organisms in the tissue." The most important antibodies are those aiding in phagocytocis and destruction of the organisms.

Pooled convalescent serum of scarlet fever seemed the most logical therapy since it would contain the responding antibodies that occur during and after infection. No doubt the occasional report in literature of phenomenal results from its use in other streptococcal infection than those mentioned can be explained in the investigation of Spink and Keefer.

SUMMARY

A number of cases grouped under eleven heads have been observed in which scarlet fever resulted through contact with erysipelas or the reverse. In one case erysipelas and scarlet fever apparently developed from a case of streptococcic septicemia. Prompt improvement followed the use of convalescent scarlet fever serum in the patients who contracted erysipelas in this manner, as well as in the patients with scarlet fever. The close observation of quarantine establishes satisfactorily the absence of contact other than that reported. A discussion of the literature is offered to show that bacteriological research supports the concept presented.

CONCLUSIONS

Streptococci hemolytici have been proved to be of multiple strains falling into a specific group as proved by the (a) agglutination, (b) toxin neutralization, (c) opsonification tests. Bacteriological research has proved that specific streptococci lose their ability to respond to the above tests on certain cultural growth but on regrowing reassume their original antigenic properties.

It is my conclusion that in the course of this dissociation these streptococci may produce other disease entities, quite different from the original type.

Although we regard scarlet fever and erysipelas distinct clinically and etiologically, though caused by a hemolytic streptococcus, one cannot explain the cited cases otherwise than that they have occurred as the result of the same causative agent. It seems reasonable to anticipate that continued investigations on the problems of streptococcus differentiation will yield results supporting my clinical experience.

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COMMON TUMORS OF EYELIDS

According to C. S. O'Brien and A. E. Braley, Iowa City *(Journal A. M. A.*, Sept. 19, 1936), tumors of the eyelids are quite common, most of them, excluding chalazia, arising from the skin and its appendages. The greater number of such growths are benign but some are malignant. In order to determine the types of common lid tumors and the relative frequency of each type, and in an attempt to establish more accurate clinical diagnoses, clinical and pathologic studies were made in a series of 100 consecutive cases. Eighty-four were of various benign types and sixteen were malignant. The benign tumors were classified as follows: papillomas 34, nevi 17, sebaceous cysts 13, fibromas 5, sudoriferous cysts 4, hemangiomas 4, dermoid cysts 2, molluscum contagiosum 2, sweat gland adenoma 1, xanthelasma 1, and granuloma 1. Of the malignant tumors, fifteen were carcinomas and one was a malignant melanoma. The authors discuss the clinical and microscopic aspects of these different tumors of the eyelids and show a number of histologic pictures. It is apparently sometimes difficult or impossible to make an accurate clinical diagnosis. Papilloma, nevus and fibroma and at times early epithelioma are easily confused if they are at all atypical in appearance. Molluscum may be difficult to differentiate, especially if the nodule is located at the margin of the lid. A sebaceous cyst may be confused with fibroma or xanthelasma. Fortunately carcinoma is usually easily diagnosed although, in the early stages, before ulceration, it may be difficult to differentiate from a papilloma, nevus or fibroma.

ATHLETIC INJURIES

Marcus H. Hobart, Evanston, Ill. *(Journal A. M. A.*, Aug. 15, 1936), demonstrates that, owing to the present widespread interest in athletics, the study and care of athletic injuries is forcing itself more and more on the attention of the medical profession. The physician should be in full control of the physical side of the team, as the head coach is in charge of the athletic side. They should work together. Under the doctor and the coach there should be trainers, masseurs and physical therapists whose duty it is to keep the men in condition, but any special treatment should be prescribed by the doctor and supervised by him. Complete harmony should exist between all those in charge. All athletes should have a physical examination at least each season. The heart, pulse and lungs should be checked over, examination made for hernias, and any other abnormalities noted. There should have been a recent successful vaccination against smallpox. All injuries should be reported immediately to the team physician. Athletic injuries demand special consideration by the medical profession as they are in a class by themselves. It is necessary for an athlete to obtain a quick but none the less complete cure. Certain advances have been made in the treatment of specific athletic injuries. This review includes twelve years' surgical experience in handling athletic injuries at Northwestern University. Detailed statistics cover a five year period (1930–1934) during this time. In treating or coaching athletes it should always be borne in mind that all serious or permanent disabilities should be prevented and that the individual should come first and athletics is purely secondary.

Stone in the Ureter; Methods of Diagnosis and Transvesical Removal*

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A PATIENT who has the classical symptoms of severe ureteral colic should not suffer long before a diagnosis of calculus disease is established by the attending physician. Unfortunately, however, ureteral colic is not always of classic type. It may, on the contrary, be atypical and lead to a mistaken diagnosis of a disorder unrelated to the urinary tract. Bumpus and I, in reviewing the histories in 1,001 cases of ureteral stone, were impressed by the number of operations, other than for removal of stone, to which these patients had been subjected prior to their admission to the clinic. On 263 (26.3 per cent) of the 1,001 patients some abdominal operation had been performed; 221 had undergone appendectomy. Pain in the right lower quadrant, occurring without extension and with little suggestion of renal colic, occurred in 138 cases; in this group thirty-seven patients, or 26.8 per cent, had undergone appendectomy. These figures alone are evidence enough of the confusion which may arise before a correct diagnosis can be established. It behooves every physician, therefore, to study carefully each case in which there is a possibility of the existence of a urinary calculus. I hardly need add that if doubt exists, and the facilities for such study are not available, it is safer to remove a normal appendix than to postpone operation and risk perforation. There are, however, few hospitals at present wherein laboratory aid in diagnosis, and perhaps supplemental assistance in the form of urologic consultation, is not quickly available.

It would not be profitable to discuss the various methods of diagnosis of ureteral calculus which may be employed for they have been described in many textbooks. I shall refer briefly to the use of the intravenous urogram, since it is the most recent addition to urologic procedures and perhaps is the method of diagnosis most frequently employed by the general surgeon. When used for localization of shadows in the region of the upper half of the ureter or at the ureteropelvic juncture, the intravenous urogram is at its best. Suspected shadows in the lower third of the ureter at times are difficult to localize because the excreted opaque medium often will not stop long enough in the ureter to permit a roentgenogram to be made. Even though one employs pressure on the lower part of the abdomen, or the extreme Trendelenburg position, the ureter may not fill. Hence, ureteral catheterization and retrograde ureterography are necessary in a fair percentage of cases. It is of course true that ureteral stones often produce urinary stasis, evidence of which is readily discovered in the intravenous urogram. The degree of pyelectasis is usually directly proportionate to the degree of obstruction produced by the stone, and often a fair estimate of the extent of injury to renal function can be made by this method. A word of caution must be said at this point, however, for complete obstruction of the ureter by a calculus may result in absolute failure of the kidney to excrete pyelographic media. The conclusion which may be drawn, to the effect that the kidney is entirely and permanently functionless, is erroneous, for as a matter of fact the kidney may really be capable of normal function and may resume it immediately when the calculus is removed. In several instances I have removed calculi from the ureter of such a kidney, and have proved by intravenous urogram made within a few hours thereafter, that renal function was normal and that little or no pyelo-ureterectasis had been produced by the presence of the stone. In such instances the kidney is apparently capable of physiologic cessation of secretion.

* Read before the meeting of the State Medical Society of Wisconsin, Milwaukee, September 17 to 20, 1935.

It can hardly be explained on any other basis. The surgeon who is not aware of this fact might unwittingly and tragically remove such a kidney. It is usually wise, therefore, to have a urologist interpret the intravenous urogram.

TREATMENT

Expectant treatment never should be prolonged beyond a reasonable time, for not only is the patient thus permitted to suffer unduly, but if obstruction persists for a number of days irreparable damage to the kidney may result. From time to time new remedies alleged to assist in the passage of calculi from the ureter have been described. The use of papaverine, eserine, glycerine and various other alleged ureteral stimulants never has been fruitful in my experience. A number of measures for control of pain are available. The hypodermic injection of opiates is of course the most reliable single method. On occasions, I have given the drug intravenously in order to relieve quickly an apparently hypersensitive individual who was suffering from extreme pain. Ockerblad, Carlson and Simon[2], in a recent article, reported on the physiologic effect of morphine on the intact ureter of the human being. They employed, principally, the method of Trattner, securing hydrophorographic tracings from which to draw their conclusions; these conclusions were that morphine, given alone, definitely stimulates ureteral contraction while atropine eliminates the contractions of the morphine-stimulated ureter. They also stated that atropine given alone does not act strikingly or constantly. The deduction to be drawn is that morphine always should be given in combination with atropine. I have observed that calcium gluconate, given either intravenously or intramuscularly in doses of 15 grains (1 gm.) has relieved the pain of ureteral colic in a number of cases. The residual soreness of which some patients complain seems to be particularly relieved by this drug.

Aside from the use of drugs the urologist has at his disposal an admirable method of relieving pain, namely, passage of a ureteral catheter beyond the point of obstruction. If this method is contemplated, the physician must be cautious about giving unusually large doses of morphine prior to catheterization, for the relief secured by the patient after catheterization is often so great that there are no longer any stimuli to offset the depressive effect of the drug and serious symptoms of morphine poisoning may ensue. The ureteral catheter which is employed should always be soft and pliable. A catheter equipped with a stylet should never be used, for the risk of perforation of the ureter with such an instrument is great. It has been stated by Wesson[3] that it is impossible to perforate the ureter with an unstyleted catheter but I can assure you that this accident can occur though a very soft and pliable catheter is passed, even with more than average skill. I am positive in the assertion that one should never be rough, and rather than force a catheter by an obstruction I prefer to resort to the judicious use of opiates or to ureterolithotomy.

The majority of ureteral calculi will pass from the ureter spontaneously and an additional number will pass after the axis of the stone has been changed by the passage of a single catheter. If, after one or two such attempts, the stone remains unvoided, I believe transvesical manipulation or ureterolithotomy is indicated.

Transvesical manipulation. An attempt to deliver a stone by manipulation through the ureteral orifice is emphatically not an office procedure. Dilatation of the ureter with bulbs, the use of multiple catheters, or of the various types of stone extractors which are available, are all methods which should be restricted to hospitalized patients. It is also wise to secure, in advance, permission for ureterolithotomy if manipulative methods fail, for occasionally the latter operation may become an emergency procedure as a result of transvesical manipulation.

There is much truth in Engel's[4] statement that the multiplicity of methods of transvesical extraction of ureteral stones is in a way proof of the ineffectiveness of any single method. Instrument makers have devised, at the suggestion of numerous urologists, a

variety of catheters, bougies, wire baskets, spiral devices, dilators, and so forth. At The Mayo Clinic, over a period of years, we have employed the method described by Bumpus[5], of using several ureteral catheters which, after passage beyond the calculus, are twisted with a view to enmeshing the calculus in the various coils which are produced. In the past few years I have employed, off and on, the extractor described by Councill[6], with rather gratifying results. This extractor consists of a group of five piano wires which can be controlled by a central wire of the same gauge, the entire group of wires ballooning out whenever the operator or his assistant exerts a pull on the central strand. The instrument can also be employed to dilate the intramural portion of the ureter in much the same fashion as that in which a Kollmann dilator is used to dilate the posterior urethra. In this way it is possible to enlarge the ureter ahead of the stone after it has been engaged, and thus keep at a minimum the trauma often produced by sharp edges of the stone, when traction is exerted. The success with which this extractor is used depends on the existence of sufficient room in the ureter to allow free passage of the instrument and easy manipulation. Extractors of any type must never be forced into the ureter. Even with the most gentle manipulation possible, both at the time of introduction and during extraction, there is a risk of ureteral injury which must be kept in mind at all times. For this reason, as has been said, it is wise to be prepared to perform ureterolithotomy, for even in the hands of the most skilled urologist that operation is necessary now and then after manipulation fails.

From 1931 to 1934 inclusive, at the clinic, 140 patients were subjected to 184 attempts to extract ureteral calculi with success in 104 cases, or 74.2 per cent. In very few of these cases was the stone less than 0.5 cm. in diameter and with very few exceptions the transverse diameter did not exceed 1.25 cm. A number of points in the actual technic may be important but the description would become involved and hence would probably be worthless. Experience gained by the individual urologist in treating patients is of paramount importance and I firmly believe that some of the condemnation of transvesical procedures comes from poor selection of cases.

It is imperative that the stone be removed either by transvesical methods or by ureterolithotomy before drainage by ureteral catheter is abandoned. If the first attempt at transvesical removal fails, one catheter, or preferably two, should be passed to the renal pelvis and fastened in. At times it is necessary, because of hematuria, to irrigate the catheters intermittently, but if possible they should be kept draining by aspiration rather than by irrigation. The incidence of infection, fever and chills will be less if this principle is followed. I believe it is unwise to remove catheters in the hope that the stone will be passed subsequently, either with or without colic. This practice was followed in a few of my cases but the incidence of reaction was great. It is better practice to proceed with ureterolithotomy while the ureteral catheters are in place if the stone was not removed at the time of manipulation. The only exception to this rule is the occasional case in which there is a very small calculus, but here one usually relies on cystoscopy and the passage of a single catheter in order to turn the axis of the stone rather than on a real attempt at transvesical manipulation.

Transvesical manipulative removal of certain ureteral calculi, therefore, seems to be a method with distinct virtue but it must of necessity be followed occasionally by ureterolithotomy, and one should always be prepared to face this alternative.

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Stone in the Ureter; Operative Treatment*

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OPERATION constitutes one method of treatment of stones in the ureter, the other two methods being to allow the patient with such assistance as he can obtain from drugs to evacuate his stone under his own power, and the manipulative treatment of stone, which has just been discussed by Doctor Thompson. It is often a nice question of judgment as to the precise point at which the surgeon should step in, his purpose being to relieve the patient of the stone at a lesser risk than that to which he will otherwise be exposed.

INDICATIONS FOR OPERATION

1. Size. Within somewhat broad limits the size and shape of a stone are important. The opinion has often been expressed that a stone 1 cm. or more in diameter cannot be expected to pass. Randall has recently expressed the opinion that the limit of size will be in the neighborhood of 6 mm. But these are only generalizations. A smooth stone, particularly if it be of a prune-stone shape, will pass where a much smaller one provided with processes and almost with tentacles will fail to pass. Some stones can at once be declared to be so unlikely to pass that operation is clearly indicated. In regard to others there may be legitimate doubt. Thus size alone is not always a clear indication.

2. Failure of the stone to pass as the result of manipulation, provided obstruction is present. In those cases in which the stone is definitely obstructive, as shown by dilatation of the ureter and to some extent of the kidney pelvis, should manipulation fail, further delay is not warranted, and operation should be undertaken. This is true regardless of the presence or absence of infection.

3. Fever following manipulation. In regard to the problem of the patient in whom sharp fever follows manipulation, there may be some difference of opinion. Such fever may as a rule be judged to be due to inflammation either in the ureter, about the ureter, or in the kidney itself. This is an unfavorable condition, and as a rule should be relieved by the removal of the stone.

4. Stone causing obstruction, above which infection has occurred. In general terms where infection has occurred above an obstructing stone, its removal by operation is indicated. The exception is perhaps in those cases in which the obstruction has been so prolonged and has gone on to such an extent that the kidney is substantially worthless. For these patients nephrectomy, as a rule combined with removal of the stone, should replace simple removal.

5. Those cases in which removal of the stone by operation is judged to be less risky than removal by manipulation. Here one treads upon debatable ground, since removal by the use of metal instruments may be safely undertaken by urologists of large experience and great expertness, whereas if no such expert is available, a reasonably well executed ureterotomy will expose the patient to a lesser risk. I have seen a good many patients in whom manipulation with metal instruments had not only failed, but had produced injuries of the ureter in a few instances to the extent of actually forcing the stone through the wall of the ureter and into the surrounding tissues, a damage quite beyond that which would have occurred from operation. Thus the decision to employ operation will depend considerably upon the skill and personal experience of the urologist by whom the manipulation might be undertaken. In the hands of very expert people, stones of astonishing size can be safely removed. For less expert people operation is often the wiser course.

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METHODS OF ATTACK AT VARIOUS LEVELS

A stone is not commonly arrested for any length of time in the lumbar spindle—that portion of the ureter extending from the ureteropelvic junction to the point of crossing of the iliac vessels. Some stones are arrested very high in the ureter, so that it may be a fair question whether they in fact are at the ureteropelvic junction or in the ureter. Most stones at this level will pass to a lower level and become more accessible. On the other hand, there is a small number of cases in which a stone is arrested in the lumbar spindle and requires operative relief. For them an incision similar to the oblique incision normally used for nephrectomy, but not prolonged so far backward, appears to me most useful. It has been suggested that for this approach a muscle-splitting operation is desirable. This method, however, is difficult, since it will be noted that the ureter lies fairly near the midline and rather remote from an incision thus placed. A muscle-splitting incision at this level does not seem to me to give satisfactory approach (figs. 1 and 2).

Fig. 1. This shows a collection of three small calculi on the left which, massed together and with sharp prongs, have become arrested at a rather unusual level in the lumbar spindle.

Fig. 2. Intravenous urogram (same patient as figure 1). Note the definite though moderate dilatation of the kidney pelvis and calices.

Next in order of descent come the stones that are arrested at the lower end of the lumbar spindle, that is at the point of crossing of the iliac vessels. In this region will be found a fair proportion of stones, varying perhaps from 15 to 20 per cent. The arrest appears to take place because of two factors: one, the confinement of the ureter by fascial bands running parallel with the iliac vessels, and the other, the change of direction in the ureter, which, having been coming downward and forward, at this point changes its direction to downward and backward, an angulation of some importance (fig. 3). The operative approach for stones at this level is easier than at any other level. Here the muscle-splitting incision, the center of which should lie on the line between the anterior-superior spine and the umbilicus and superficially parallel to the fibers of the external oblique is at its best. The skin and the external oblique having been divided, the internal oblique and the transversalis may then be separated in the direction of their fibers, exposing the retroperitoneal space. The position of the ureter is here more fixed than at any other level. It will always be found

Fig. 3. In this case a small stone is shown at the level of the iliac vessels on the right. Its position is clearly indicated by its relation to the ureteral catheters.

Fig. 4. In this case a stone on the right of moderate size was arrested at the level of the iliac vessels and its position obscured by its relation to the sacro-iliac joint. Note the slight dilatation of the renal pelvis and calices.

very close to the bifurcation of the iliac vessels. In the case of patients with thick abdominal walls, the muscle-splitting incision will not always give a satisfactory exposure and the oblique, muscle-dividing incision centered at the same point is to be preferred (fig. 4).

Stones in the lower third of the ureter. In this portion will be found a majority of the stones which do not pass and for which operation is indicated. It is also the most inaccessible portion of the ureter. There are two distinct schools of thought in regard to the best approach. One group favors the median incision, from pubes upward toward the umbilicus, with extraperitoneal exposure of the bladder, which is then freed until the lower end of the ureter is exposed. The other school, to which I belong, favors the so-called Gibson incision, which starts nearly at the midline, runs outward parallel with Poupart's ligament for the inner two-thirds of that structure, and then turns sharply upward. In the inner third of this incision the anterior sheath of the rectus muscle should be divided, which will then enable that mus-

Fig. 5. The stone here shown in the lower third of the right ureter is of considerable size and its passage unlikely. Note the moderate dilatation of the right kidney pelvis and definitely reduced kidney function on that side.

cle to be retracted inward without dividing its fibers. The incision then continues parallel with the fibers of the aponeurosis of the external oblique and only where it turns upward does it require division of muscles, namely, the internal oblique and transversalis. Although this is often a somewhat longer incision, it does far less violence to the bladder wall and in my experience gives equally good access to the lower end of the ureter. Neither of these incisions will give a thoroughly satisfactory exposure in the male with a heavy panniculus and heavy muscles. On the other hand, in the female, the Gibson incision gives, as I think, a better exposure than the median incision (fig. 5).

Management of the stone after the ureter has been exposed. It is wise to remember that as stones come down from the kidney, they will retreat more readily than they will advance. Some unfortunate experiences, both personal and in the hands of my colleagues, have convinced me that when the stone has been located, no time should be lost in putting a loop of tape about the ureter above the stone. This prevents retreat of the stone and may save a very difficult search should the stone slip up toward the kidney.

The next point which I wish to bring to your attention concerns itself with the essential importance of demonstrating the patency of the ureter below the stone. Not uncommonly a stone of the size and shape of that shown in the x-ray is found and removed, but the ureter remains obstructed, and small fragments may often be found at a lower level, perhaps detached from the stone, perhaps not visible in the x-ray. The complete patency must therefore be demonstrated beyond doubt before the wound is closed. Failure to do this is at the bottom of many ureteral fistulae.

The question of the suture of the wound in the ureter is still under discussion. It is said to have been clearly demonstrated on animals that an unsutured wound in the ureter will heal more rapidly than one which is sutured, and for this reason avoidance of suturing is advised. Although this observation may be correct, it does not appear to me to settle the question. An unsutured wound will drain urine, which must be provided for by adequate drainage so that it may reach the surface. It has seemed to me quite certain that drainage of urine to the surface favored the development of infection where this was not present before operation. Careful closure of the ureter by suture will in the majority of cases entirely prevent such leakage and thus favor healing without infection. Of recent years we have come to recognize the importance of avoiding infection in the removal of stones both from the kidney and from the ureter. Where infection does not exist prior to operation, the introduction of infection by accidental contamination appears importantly to increase the incidence of recurrence. While this is more true of renal calculi, the avoidance of infection is hardly less important in the case of the ureter. Not only may the infection extend to the kidney, but infection of the wound in the ureter increases scar and thereby increases the possibility of stricture. For this reason I am opposed to leaving the wound in the ureter open.

DRAINAGE OF THE KIDNEY

There is a considerable group of cases in which drainage of the kidney, generally by a ureteral catheter, is desirable. This will chiefly be indicated in cases in which there is more or less marked infection or in which there is gross disproportion between the ureter above the stone and the ureter below. An infected kidney requires drainage. It is not certain that this drainage will be entirely satisfactory through the ureter recently incised. If the drainage is not free, due perhaps to swelling at the point of incision, then either back pressure will occur or leakage will take place through the incision. Both of these are undesirable. For this group, when there is doubt, it seems to me wise to introduce a ureteral catheter upward to the kidney and downward to the bladder, the bladder end being fished out either at the time or on the next day through a cystoscope.

A much clearer case exists in the patient with gross disproportion between the ureter above and below the point of arrest. Where such disproportion exists, satisfactory drain-

Fig. 6. This shows a stone of considerable size arrested in the lower third of the left ureter. The coiling of one of the ureteral catheters shows gross disproportion between the ureter above and the ureter below the stone. There was greatly reduced function of the left kidney.

Fig. 7. This patient had a very large stone arrested in the lumbar spindle just below the kidney on the left and a large stone in the lower third of the ureter on the right. These had been present for some years.

age cannot be expected. and regardless of the element of closure by swelling, satisfactory emptying of the kidney is not likely to occur (fig. 6). For these patients the largest catheter which can be made to pass down the lower segment of the ureter should be used. Of late years I have used for this purpose small soft rubber catheters, which are, I think, preferable to the rather rigid gum elastic catheters of sufficient caliber.

Finally, there is an occasional patient with a very large stone arrested in the ureter, commonly at the lower end above which there is very great dilatation of the ureter and serious hydro- or pyonephrosis (figs. 7 and 8). For these patients I believe that a temporary nephrostomy is clearly indicated, since I question whether adequate drainage through the lumen of the ureter can be obtained. If drainage fails, these kidneys will rapidly disintegrate. If at the time of operation they be judged worth saving, then they must have ample drainage or they may rapidly become worthless.

Fig. 8. Intravenous urogram of same patient as shown in figure 7. Note the marked dilatation of kidney pelves and calices on both sides. For this patient we elected to do ureterotomy and nephrostomy on the left and nephrostomy on the right at the first operation. Two weeks later the stone was removed from the right ureter.

Provision of drainage down to the incision in the ureter. This should, I believe, always be provided. Those surgeons who do not suture the wound in the ureter of course use it regularly. Those surgeons who attempt careful closure of the ureter will still be well advised to provide drainage should their sutures fail of complete closure. Even the most accurate and painstaking approximation of the wound in the ureter may leak. Should leakage occur and drainage not have been provided, then an accumulation of urine will occur which will require drainage and will, in my experience, lead to very sluggish wound healing and occasionally to a troublesome ureteral fistula.

The length of time during which such drainage should be left in place seems to me important. We are naturally inclined, if the wound remains dry for four or five days, to remove the drain, and this can generally be safely done. On the other hand, it has been my experience, perhaps unfortunate, to see a few cases in which the drain having been removed on the fourth or fifth day, leakage occurred later with most troublesome consequences in the way of urinary fistula. I believe, therefore, that the safety of the patient and the peace of mind of the surgeon will both be enhanced by leaving drains in place for at least seven days. Drainage should, I think, always be carried out by means of rubber of some type. Gauze, even though covered with rubber, seems to me objectionable. A small rubber tissue drain, or a very small tube placed down to the neighborhood of the incised ureter, will provide against eventualities.

Ureteral fistula. In a certain proportion of cases, whether or not the ureter is sutured, leakage will occur and urine will follow the course of the drain. During the first seven to ten days this need cause no concern, since the vast majority of cases will heal. There comes a time, however, at which this leakage ought to be stopped, and this can ordinarily be best done by introduction of a ureteral catheter as large as can be comfortably passed. There is of course some chance that the catheter will leave the ureter through the incision, a most unfortunate occurrence. This fact can generally be known at the time, since the ureteral catheter will not pass freely and will not drain urine. Occasionally, if the wound in the ureter is high, there may be doubt as to the position of the catheter, which can then be best checked by x-ray. Should this accident occur, the catheter should be withdrawn and another attempt made after the lapse of a few days. Where a catheter has been introduced for this purpose, it should be allowed to remain long enough to establish a satisfactory channel. Ordinarily three or four days will be sufficient, but if the catheter is draining satisfactorily and is not particularly annoying to the patient, there is no objection to allowing it to remain five or even six days. Where a ureteral fistula has occurred after removal of the drain, a more prolonged drainage by catheter will be required. Under these conditions I am inclined to leave the catheter in place as long as it will drain satisfactorily up to a period of eight to ten days.

Postpartum Malignant Neutropenia and Purpura with Recovery

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A GRANULOCYTIC angina is well established as a clinical entity though there is considerable disagreement as to terminology, and classification of borderline cases. Hemorrhage is occasionally mentioned as one of the symptoms. However, in the available literature, we have been unable to find mention of severe postpartum bleeding simulating thrombocytopenic purpura, associated with malignant neutropenia. Hence

BLOOD COUNT AND SPECIFIC THERAPY

Date	*Hb.*	*R.B.C.*	*W.B.C.*	*Poly-morphs*	*Lympho-cytes*	*Therapy*
4–13–35	65–70%	2,930,000	600–650	8%	92%	Transfusion 420 cc.
4–14–35	65	3,150,000	2,100	24	72	2 Pentnucleotide 10 cc.
4–15–35	60	3,000,000	3,800	42	58	Pentnucleotide Lextron caps. IV t. i. d.
4–16–35	50	3,150,000	12,600	56	44	Pentnucleotide Lextron
4–17–35		3,740,000	15,700			Lextron
4–18–35			15,400			Lextron
4–19–35			16,000			Lextron
4–20–35	50	3,720,000	12,600			Lextron
4–21–35			12,800			Lextron
4–22–35	55-60	3,740,000	9,600	67	33	Lextron
5– 7–35	75	4,670,000	8,200			Iron & ammonium citrate gr. 7½ t. i. d.
8– 8–35	95	4,760,000	6,450	45	55	no
10–11–35	90	4,080,000	7,600			no

this case is reported with the hope that it may add a little to the literature on this baffling disease.

REPORT OF CASE

Mrs. B., 26-year-old white primipara was first seen Dec. 9, 1934, suffering from an attack of influenza. At that time she was about 5 months pregnant, due Apr. 11, 1935. She had mumps, whooping cough, and T & A in childhood. Pneumonia 10 years ago and mastoidectomy 3 years ago. Menstrual history was normal. Family history negative except father died suddenly at 72 probably of coronary thrombosis, mother had been obese and died with cancer of the breast, her only sister had had 2 normal deliveries. The patient recovered in a few days and was subsequently seen at the office 7 times for prenatal examination. She drank a quart of vitamin D milk daily. Her total weight gain was 19 pounds. Blood pressure and urine were always normal. She developed a cold 2 or 3 weeks before delivery but had only a slight cough remaining when taken to the hospital, in labor, Apr. 11, 1935.

Pains fairly severe every 2 to 3 minutes were not accomplishing much so quinine sulphate and quinine bisulphate āā gr. IV were given followed shortly by a slight chill with T. 100.2. As she was tiring and pulse rate was rising, (96) it was decided to do a low forceps delivery. During the ether anesthesia her throat filled with mucus so atropine gr. 1/150 was given hypodermically. Pituitrin ½ cc. (obs.) was given just before and just after delivery. Patient's pulse rose to 160 and her lips became cyanotic. A small laceration was repaired and the placenta, which was succenturiate in type, delivered by early expression. There was little blood lost. On return to her room, patient awoke and pulse dropped to 126.

The baby, a male, weighed 7 pounds 6½ ounces, and was normal during the puerperium except for mild impetigo. Because of the mother's condition he was started on the bottle, and has never been breast fed.

During the day of delivery patient received a total of 20 grains of aspirin. Her pulse dropped to 72 and temperature was 99.2. She slept well the first night but early the next morning there was noticed a steady oozing of blood from the gum margin accompanied by an excessive lochia rubra, though the fundus remained firm. Several typical petechiae appeared on the face, arms and legs. Ergot was given with little effect. Mouthwash was useless. Blood count revealed secondary anemia and WBC 600 with only 8% neutrophiles. Coagulation time 3 minutes. Bleeding time several hours. Finger from which blood count was taken had to be bandaged, and still bled.

A direct blood transfusion was followed by a chill and profuse diaphoresis. T. 102.2, P. 102. Patient had a comfortable night, and in fact during the entire illness had practically no complaints. T. 97.8, P. 71.

Apr. 14, 1935: Bleeding much better and patient feels stronger. Pentnucleotide treatment begun. Gums stopped bleeding.

Apr. 15, 1935: Liver extract begun orally. (Lextron)

Apr. 16, 1935: Daily temperature rise reached its highest point on this date, except for first 2 days of illness. From then on the peak was lower until Apr. 21, 1935, when it remained normal all day. Pulse was roughly proportional to temperature.

Apr. 20, 1935: Oozing of blood from gum margin probably from chewing hard food, stopped in 2 hours.

See chart for specific treatment and blood counts.

Patient was discharged Apr. 22, 1935, and has been perfectly well ever since.

COMMENT

Patient was not taking any medicine before admission to hospital. Before the onset of bleeding she had received the following drugs: quinine, atropine, pituitrin, ether, aspirin. However, she had taken aspirin previously, and several times since.

(Continued on page 842)

STEPHEN E. GAVIN, M. D.
President, State Medical Society of Wisconsin, 1937

Dr. Stephen E. Gavin, Fond du Lac, was born in Neenah, Wisconsin, in 1877. His early years were spent largely in northern and central Wisconsin. A graduate of Carroll College in 1895, and Rush Medical School in 1899, he was licensed in Wisconsin in the same year, establishing his practice in Fond du Lac.

During the World War Doctor Gavin was appointed as captain, later major, serving with the Tank Corps for eight months and later in the General Hospital No. 28 at Fort Sheridan.

Doctor Gavin has served as president of the Fond du Lac County Medical Society, as delegate to the State Society, for many years has been a member of the Committee on Public Policy and has served as its chairman, and as councilor for the Sixth District since 1931. He is a Fellow of the American College of Surgeons.

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« « » EDITORIALS » » »

Rheumatic Fever,—Occupational Disease?

RHEUMATIC fever is increasing in the United States. The past winter and spring evidenced a decided increase in the incidence of the disease in Wisconsin.

A recent report of the American Committee for the Control of Rheumatism* states that studies indicate that the incidence of rheumatic fever depends on various factors of climate and environment, the patient's geographic habitat, his social condition, and seasonal change. The results of the Medical Research Council's investigation, which included familial incidence and heredity, familial evidence of sore throats, maternal care, exposure, sleeping conditions, clothing, birthplace, occupation, types and sites of houses, and so forth, was largely negative. It is, however, the belief of many that some of these factors are important; namely, that the incidence of rheumatic fever and rheumatic heart disease is low in the tropics and higher in the temperate zone. It is also high among persons living near sea level or in basements, particularly in cold, damp months.

The American Committee states that the great majority of writers favor one of the variants of the bacterial theory: (1) the theory of bacteremia; (2) the theory of bacterial toxemia; (3) the theory of bacterial allergy. For each group some hold responsible one bacterium or its toxin or its antigen; others consider that any one of a number of bacteria or their toxins or their antigens may be causal. The fact that sore throat so often precedes the initial or recurrent rheumatic attack and that the disease, always one of low infectivity, occasionally assumes epidemic proportions, strengthens the bacterial theory.

Five types of microorganisms have been isolated from the blood of rheumatic patients: (1) a "sporulent" bacillus, anaerobic but facultatively aerobic; (2) a diplococcus, aerobic but facultatively anaerobic; (3) a streptococcus generally hemolytic; (4) diphtheroid organisms (aerobic coccobacilli); (5) enterococci.

The authors of the "Rheumatism Review" feel definitely that the cause of the disease has not been established. The fact that so many different organisms have been isolated

* The Present Status of the Problem of Rheumatism and Arthritis; Review of American and English Literature of 1934. Ann. Int. Med., 9:883, (Jan.) 1936.

and are considered the cause of rheumatic fever, suggests that probably no one of those so far isolated is responsible. Rheumatic fever is a fairly distinct disease entity. It would indeed be surprising were it found to be caused by many different organisms. Rheumatic fever uncomplicated by carditis results in a period of disability lasting several months. When rheumatic heart disease occurs such a period is greatly prolonged and occasionally permanent and total disability results.

Although the disease is most common in children, sufficient instances are found among adults, especially males, to bring up the question, at times, of industrial liability. This has occurred several times; in each instance it was claimed that the occupational exposure caused the disease.

Rheumatic fever occurs in all walks of life, in all vocations, and in all types of industrial environment. Although there may be an occasional occurrence in one whose work necessitates exposure to cold and dampness, it has been the opinion of those involved in the industrial aspects of the disease that there is not sufficient evidence at present to warrant including rheumatic fever in the list of occupational diseases.

In any disease where the resulting disability is greatly prolonged or even permanent, the proof of industrial hazard should be very definite. H. E. M.

The Unqualified Driver—Our Problem

THE medical profession as a whole depends upon the highways as a means of travel. It would follow, therefore, that as a body we should try to lead all other classes in endeavoring to make our thoroughfares more safe.

The automobile manufacturer will continue to make new cars, and these cars are going to be sold. It takes a long time to wear out the modern car, yet the ever increasing automobile graveyards we see in every city and town are evidence of what is really happening—our highways are becoming more congested each year.

We are apt to take driving too much for granted, an inherited trait as it were, an evidence of our advancing racial ability.

In spite of the painstaking and continual teaching of careful driving, we see the death rate and number of injured increasing each year.

The estimated loss of life this year will be near forty thousand with a million and a quarter disabling accidents. At this rate, it means that one out of every twenty in the United States will be killed or injured in an automobile accident in the next five years. It is from these statistics that it ought to be our personal problem, because it means one out of twenty in our family or relatives, one out of twenty of our social associates, or one out of twenty of our colleagues will meet death or will be injured within this time by an automobile.

As a professional problem, this condition ought to be included in our program of preventive medicine. By wholehearted cooperation with our local, county, state and national safety councils, much I am sure can be accomplished. Man has been able to decrease the death rate and prolong life from disease in many instances, surely we ought to be able to solve this new menace to life.

The engineers have their problems with roadbeds, crossings, types and kinds of automobiles. The courts have their problems with traffic violations, such as careless and drunken drivers, but I believe the unqualified driver in the majority of cases is the problem of the medical profession.

Every one of our profession knows individuals who through nervous lesion, cardiovascular conditions, eye conditions with impaired vision and various other diseases, make them road hazards. We have no way at present to stop them from driving, but I believe much can be done at present by explaining why they should not drive. This I am sure will have to be done by proper legislation in the near future, but, until this time, let us not lose our sense of indivdiual and collective responsibility to the public. H.A.S.

SOCIETY PROCEEDINGS

DODGE COUNTY

The Dodge County Medical Society and the Auxiliary to the Society were co-hosts to the nurses of the Lutheran Deaconess Hospital on September 3. A six o'clock dinner was served in the Old Hickory Club House preceding the entertainment.

WALWORTH COUNTY

The Walworth County Medical Society and the dentists and nurses of Walworth County held a joint meeting at the Y. M. C. A. at Lake Geneva early last month. Dinner was served at the Hotel Denison, with Dr. William E. White as toastmaster, and Dr. B. C. Campbell, Dr. B. J. Bill, and Dr. W. B. Hill as speakers.

WAUKESHA COUNTY

The members of the Waukesha County Medical Society and the Auxiliary to the Society were guests of Dr. and Mrs. A. J. Hodgson of Waukesha at a dinner at the Spa, Waukesha, on September 2.

WOOD COUNTY

The Wood County Medical Society held its quarterly meeting at the Hotel Witter at Wisconsin Rapids on August 25, with twenty-six members in attendance. Dr. Otto A. Backus, Nekoosa, president of the Society, acted as toastmaster. The 6:30 dinner was followed by a business meeting. Dr. F. A. Boeckman, of Marshfield, discussed the subject of carbon monoxide poisoning, and Dr. Merritt Jones, of Wausau, the subject of back injuries.

SEVENTH DISTRICT

The Seventh District held an inter-county meeting on September 29 at the Conway Hotel, Appleton. Dr. N. W. Barker of the Mayo Clinic spoke on the subject of "Hypertension and Peripheral Vascular Diseases."

TENTH DISTRICT

Members of the State Medical Society from the Tenth District met at the Chequamegon Country Club on August 28. Besides medical addresses by Dr. E. L. Sevringhaus, Dr. Robert E. Burns, and Dr. Carl Neupert, all of Madison, the program included a nine-hole golf tournament and a dinner.

THE WOMAN'S AUXILIARY

President—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
President Elect—
Mrs. Oscar Friske, 932 Bluff St., Beloit
Secretary—
Mrs. Walter E. Sullivan, Shorewood Hills, Madison
Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine
Public Relations Chairman—
Mrs. I. F. Thompson, 1523 Deane Blvd., Racine
Program Chairman—
Mrs. J. H. Weisberg, 320 E. 7th St., Superior
Hygeia Chairman—
Mrs. H. H. Hull, Brandon
Organization Chairman—
Mrs. Willard Pease, Rio
Archives and Historian—
Mrs. Harry Keenan, Stoughton
Press and Publicity Chairman—
Mrs. F. J. Pfeifer, New London
Parliamentarian—
Mrs. J. Gurney Taylor, 845 E. Glen Ave., Milwaukee
Chairman of Nominating Committee—
Mrs. James Sargent, 2924 N. Stowell Ave., Milwaukee

Mrs. Oscar Friske, Beloit, Named President-Elect of Auxiliary; Large Registration at Madison Meeting

AT ONE of the largest meetings in the history of the Auxiliary, Mrs. Oscar Friske, Beloit, was named president-elect, Mrs. Walter E. Sullivan, Madison, secretary, Mrs. Frank W. Pope, Racine, re-elected treasurer and Mrs. J. Gurney Taylor, Milwaukee, parliamentarian. At noon of the second day of the meeting the registration reached 257, of which 192 were members of the Auxiliary and 65 were guests.

Mrs. C. A. Harper, Madison, was inducted as president at the conclusion of the second session of the Auxiliary and subsequently announced the appointment of the following committee chairmen:

Public Relations_____Mrs. I. F. Thompson, Racine
Program_____Mrs. J. H. Weisberg, Superior
Hygeia_____Mrs. H. H. Hull, Brandon
Organization_____Mrs. Willard Pease, Rio
Archives and Historian _____
_____Mrs. Harry Keenan, Stoughton

Press and Publicity--Mrs. F. J. Pfeifer, New London
Parliamentarian--Mrs. J. Gurney Taylor, Milwaukee
Chairman Nominating Committee ----------
----------Mrs. James Sargent, Milwaukee

At a post-convention meeting of the Executive Board, five members of the Auxiliary were chosen delegates to the Atlantic City session of the National Auxiliary next May. Delegates and alternates selected by the Executive Board follow:

Delegates:
Mrs. Harry Heebe, Milwaukee
Mrs. J. P. Lenfestey, De Pere
Mrs. E. C. Pfeifer, Racine
Mrs. Rock Sleyster, Wauwatosa
Mrs. Oscar Friske, Beloit

Alternates:
Mrs. E. F. McGrath, Appleton
Mrs. E. L. Sevringhaus, Madison
Mrs. Ralph Carter, Green Bay
Mrs. W. W. Crockett, Beloit
Mrs. John Wilkinson, Oconomowoc

Thirty-seven officers of the State and County Auxiliaries and guests attended the opening Executive Board meeting on Tuesday evening, September 8. Mrs. F. H. Clausen, Horicon, state commander of the Women's Field Army of the American Society for the Control of Cancer, presented to the officers the general plans of the educational movement in the field of cancer control. General reports and discussions followed.

The first general session was opened by the President, Mrs. F. G. Connell, Oshkosh, in the ballroom of the Loraine Hotel on Wednesday morning, September 9. Mrs. Homer Carter, Madison, president of the Dane County Auxiliary, gave the address of welcome and response was made by Mrs. William Jermain, president of the Auxiliary of Milwaukee County. Mrs. Reginald H. Jackson, Madison, convention chairman, presented a synopsis of the program, following which representatives of each of the component auxiliaries presented reports.

Mrs. Connell, in her presidential address, stated that aims of the State organization were to place speakers before large lay organizations; to build the Wisconsin subscriptions to Hygeia and to collect historical data relating to the early practice of medicine in Wisconsin. Elections were the first order of business at the Thursday session following which Dr. Morris Fishbein, editor of the Journal of the AMA and Hygeia presented an address on "Pursuit of Longevity."

Entertainment throughout the sessions included a luncheon at the Loraine Hotel at which the Heidelberg Octette, Chicago, presented numerous selections; an automobile tour of Madison followed by a reception at the Executive Mansion; a complimentary performance of "The Doll's House" at the University Theater starring Agatha Karlen Fowlkes; a bridge luncheon at the Maple Bluff Golf Club and the annual dinner at which Dr. Morris Fishbein, of Chicago, presented the address of the evening.

All in attendance were enthusiastic for the progress of the Auxiliary and the entertainment presented through plans of the hostess auxiliary,—Dane County.

The Presidential Address

By MRS. C. A. HARPER
Madison

AS INCOMING President of the Auxiliary to the State Medical Society of Wisconsin, it is a privilege to greet you in Madison at this eighth annual meeting. It is interesting to know that the organization of the auxiliary was held in Madison in 1929, as was also the third annual meeting in 1931.

My first encouragement comes from the newly elected officers and chairmen. I am sure I can voice your feelings in thanking them for their willingness to undertake these responsible positions. You will find them always ready and glad to assist you who are county chairmen and members. With the cooperation of each of you I will carry on in this responsible office to the best of my ability. This requires teamwork of every member. If the state organization is to progress

it can do so only through the work of the various counties. The time has come when the Auxiliary has so proved its worth that the question is not: "Are you a member?", but "why are you not a member?"

In discussing the work for the ensuing year I would like to direct attention to a few projects that should be stressed. It should be one of our aims to increase the membership.

The skeleton map of Wisconsin shows that nineteen auxiliaries to county medical societies have been organized in Wisconsin since the House of Delegates of the State Medical Society authorized the formation of the Auxiliary at its annual meeting in 1928.

Another project will be along historical lines. During the past year we have made a fine beginning toward collecting histories and information of the pioneer practitioners of the past. This is a project of much interest to the State Medical Society. It has been accomplished up to date with great difficulty because the families have moved all over the United States. In order to make it more successful and simplify the work I would like to suggest that we get a sketch such as we have of the pioneer doctors of the present-day physician. It is a simple matter to ask the physician of today for a similar sketch.

For many years one of the chief activities of the National Auxiliary has been the promotion of Hygeia as a means of health education for the Auxiliary's members and for the public. Let us remember that Hygeia is published by the American Medical Association at a loss of $40,000 a year in order that the layman may be given authentic health information.

In the June, 1934, issue of the Wisconsin Medical Journal an editorial appeared by Dr. Rock Sleyster entitled, "Why an Auxiliary?". I quote the question, "Why a Wife?"—which constitutes as good an answer as any.

In closing, let us remember that we are the wives of men whom Robert Louis Stevenson thus eulogized: "There are men and classes of men who stand above the common herd—the soldier, the sailor, the shepherd not infrequently, the artist rarely, rarer still, the clergyman, the physician almost as a rule. He is the flower of our civilization; and when that stage of man is done with only to be marvelled at in history he will be thought to have shared but little in the defects of the period, and to have most notably exhibited the virtues of the race. Generosity he has such as is possible only to those who practice an art and never to those who drive a trade. Discretion tested by a hundred secrets, tact tried in a thousand embarrassments, and what are more important, he will bring humor, cheerfulness and courage. So it is that he brings air and cheer into the sick-room, though often enough, but not so often as he desires, brings healing." I thank you.

From the Counties

By MRS. E. F. McGRATH

Chairman of Press and Publicity, Sept. 1935—Sept. 1936, Appleton

Of the twenty county auxiliaries in Wisconsin, eighteen made a report of their work at the general session on Wednesday, September 9, 1936.

1. **Brown–Kewaunee–Door Auxiliary** (organized November, 1935)

Present membership—fifty-eight.

Outstanding work of this county was their support to the Infants Home of St. Mary's Hospital, placing of speakers and subscriptions to Hygeia.

2. **Columbia Auxiliary** (organized January, 1931)

Present membership—ten.

Members are from widely scattered area. Contributed Hygeia subscriptions and made liberal hospital donations; working on early medical history.

3. **Dane Auxiliary** (organized May, 1933)

Present membership—fifty-four.

Outstanding philanthropic work has been dressing of twenty dolls for the Empty Stocking Club, an organization for providing Christmas presents for children in families in needy circumstances. The assisting with clothing for the Madison Kiddie Camp, which is an organization to provide outdoor life during the summer months for underprivileged and undernourished children. The quota of Hygeia was secured and speakers placed.

4. **Dodge Auxiliary** (organized May, 1935)

Present membership—sixteen.

This Auxiliary, in its first year has had some especially good meetings during the year on health subjects.

5. **Douglas Auxiliary** (organized December, 1933)

Present membership—sixteen.

Have meetings every three months, promote Hygeia and promote health programs.

6. **Fond du Lac Auxiliary** (organized April, 1936)

Present membership—thirty-four.

Fond du Lac is a newly organized Auxiliary but officers have been elected and committees appointed and plans are well under way for the year's work.

7. **Grant Auxiliary** (organized July, 1935)

Present membership—fifteen.

This Auxiliary has had regular meetings during the year, some in conjunction with the County Medical Society, and has taken part in splendid health programs.

8. **Green Lake–Waushara–Adams** (organized August, 1930)

Present membership—ten.

Membership is scattered, Hygeia is promoted and work on early medical history is started.

9. **Kenosha Auxiliary** (organized November, 1932)

Present membership—thirty-eight.

Have an active speakers' bureau, carry on philanthropic work in the county institutions.

10. **Manitowoc Auxiliary** (organized March, 1933)

Present membership—ten.

Regular meetings held, featuring health talks; Hygeia placed in beauty parlors.

11. **Marinette–Florence Auxiliary** (organized February, 1930)

Present membership—sixteen.

Sponsored a Christmas Ball, proceeds to be used for the Auxiliary's educational program. Splendid health program given by outside speaker.

12. **Milwaukee Auxiliary** (organized December, 1931)

Present membership—three hundred and sixteen.

Fifty speakers were placed during the year by the public relations committee. The public welfare committee arranged tours through goodwill industries and convalescent home of Milwaukee Children's Hospital. Hygeia subscriptions were raised successfully and much assistance was given to the Medical Society in a tuberculosis detection program. The educational committee did splendid work on the exposure of quackery.

13. **Outagamie Auxiliary** (organized May, 1934)

Present membership—twenty.

Hygeia was placed in all rural schools of County.

14. **Polk Auxiliary** (organized July, 1932)

Present membership—fourteen.

Have held regular meetings, promoted Hygeia.

15. **Portage Auxiliary** (organized January, 1933)

Present membership—nine.

Hygeia was the main project of the year, placed in all the schools of Stevens Point. Many valuable health programs were given and contacts made with physicians' wives from neighboring counties, also the attorneys' wives of Stevens Point were guests at one meeting.

16. **Racine Auxiliary** (organized December, 1932).

Present membership—forty-two.

Book reviews were given. It was voted to start the running year in October instead of December. Girl Scout Troop sponsored jointly by Auxiliary and Woman's Club of Racine. Tour made through Orthopedic School in Kenosha.

17. **Rock Auxiliary** (organized February, 1930)

Present membership—thirty-five.

Many speakers were placed, Hygeia was subscribed to by all members and work on early medical history has been started.

18. **Sheboygan Auxiliary** (organized June, 1932)

Present membership—twenty-six.

The Auxiliary to Sheboygan County Medical Society had several speakers providing valuable programs along lines of education and health.

19. **Waukesha Auxiliary** (organized April, 1933)

Present membership—thirty-six.

Regular meetings held, some in conjunction with the County Medical Society, all splendid health programs; work started on medical history.

20. **Winnebago Auxiliary** (organized April, 1932)

Present membership—thirty-nine.

This auxiliary has a printed program taking care of all the meetings of the year. They placed one hundred subscriptions to Hygeia, had an outside speaker for an open meeting and have a good start on the historical collection.

News Items and Personals

Dr. J. C. Wright of Antigo, for many years secretary and delegate of the Langlade County Medical Society, will leave for California in October. He plans to spend the winter in that state after fifty-five years of continuous and active practice.

Dr. Wallace Marshall, who has been associated with the Appleton Clinic for three years, has accepted an appointment to the faculty of the Medical School of the University of Alabama at Tuscaloosa, Alabama.

WHA GRANTED POWER INCREASE

WHA, the state-owned station over which the State Society's health dramas are broadcast each Tuesday, Wednesday and Thursday, has been granted an increase in power. This station for the last few years has been operated on 2,500 watts. Authority has been received from Washington, D. C., to increase this power to 5,000 watts. This will mean that the State Society's health programs will reach a far greater audience than ever before.

The State Society has received many complimentary remarks on their program since the adoption of the dramatic form of presentation. We urge upon our members and their wives to listen to "THE GUARDIANS OF YOUR HEALTH." The Committee on Health and Public Instruction will appreciate receiving comments and constructive criticism on these programs.

Dr. W. C. Reineking, superintendent of Lake View Sanatorium, attended the annual meetings of the Mississippi Valley Conference on Tuberculosis and the Mississippi Valley Sanatorium Association at Peoria, Illinois, the latter part of September.

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Dr. R. F. Wilson, of the Beloit Municipal Hospital, attended a course of clinics, lectures, and demonstrations on the subject of cancer at the Michael Reese Hospital in Chicago during the week of September 21.

—△—

Dr. T. E. Farrell, of Seneca, has opened offices in the Garvey Building in Prairie du Chien.

—△—

Dr. S. E. Gavin, of Fond du Lac, new president of the State Medical Society of Wisconsin, was the guest of honor at a dinner on September 17 at St. Agnes Hospital, given by the personnel of the institution, of which Sister Mary Seraphia is superintendent. Guests were members of the Fond du Lac Medical Society, present and former interns of the hospital, and several lay friends of Doctor Gavin and his family.

—△—

Dr. S. M. Welsh, of La Crosse, who has been a member of the staff of St. Francis Hospital for the last five years, has moved to Prairie du Chien. He will be associated with Dr. J. M. Sullivan at the Beaumont Hospital and will become chief of staff during the absence of Doctor Sullivan, who will take postgraduate work in surgery and internal medicine at the University of Pennsylvania.

DRAMA OF "THE GUARDIANS OF YOUR HEALTH"

Each Tuesday, Wednesday and Thursday the State Medical Society presents "The Guardians of Your Health" over the state-owned radio station WHA, Madison (940). These health messages are broadcast at 9:00 a. m.

The schedule for this month:

October 13—The Doctor's Scotland Yard
October 14—The Doctor's Scotland Yard
October 15—Anemia
October 20—The Doctor's Scotland Yard
October 21—The Doctor's Scotland Yard
October 22—The Child's Posture
October 27—The Doctor's Scotland Yard
October 28—The Doctor's Scotland Yard
October 29—Compatible Eating
November 3—The Doctor's Scotland Yard
November 4—The Doctor's Scotland Yard
November 5—Pimples
November 10—Eye Injuries
November 11—Down the Wrong Pipe
November 12—Questions and Answers

A special program of lectures and demonstrations in medicine and surgery will be held under the direction of The Mayo Foundation from November 9 to 13, inclusive. Mornings will be devoted to surgical and medical clinics. In the afternoons and evenings symposiums will be conducted on neurology, gynecology, diseases of the ear, nose, and throat, laboratory procedures, emergency treatment, pediatrics, and renal diseases. In addition a clinicopathologic conference will be held. While this program is arranged primarily for the Fellows of the Foundation, visiting physicians are invited to attend.

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Dr. A. A. Pleyte, Milwaukee, of the medical staff of the Wisconsin Anti-Tuberculosis Association, talked on the subject of tuberculosis in the state of Wisconsin at the meeting of the Rotary Club in Ashland on August 26.

—△—

Dr. J. P. Skibba, of Menasha, has been elected city physician. This is a new office created by the Council in connection with relief work.

—△—

Dr. E. A. Weller, who for the last several years has practiced medicine and surgery in Stevens Point, has purchased the practice of Dr. E. H. Jones of Weyauwega.

—△—

Dr. and Mrs. R. H. Dunn and their two youngest children have left Rosholt to make their home in California.

A four-year course in medical technology, leading to the degree of bachelor of science, was announced Friday by the Rev. William J. Grace, S. J., dean of the Marquette University College of Liberal Arts.

The course will be restricted to young women who present superior grades from their high schools and will be given in cooperation with the Marquette School of Medicine. The first two years will be spent in the liberal arts college and the last two in practical work in Milwaukee hospitals.

Sister M. Bernice, O. S. F., dean of Marquette's new college of nursing, announced that courses for graduate nurses leading to the degree of bachelor of science in nursing education will be offered this fall.

—△—

Dr. L. W. Gregory, of Manitowoc, gave a talk before the Kiwanis Club on August 25 on the subject of orthopedics.

—△—

Dr. George J. Maloof, formerly of Wauzeka, has opened offices for the practice of medicine, surgery, and obstetrics, at 19 North Pinckney Street, Madison. He will serve also as part-time instructor at the University of Wisconsin Medical School.

—△—

Dr. H. E. Kasten has been elected to a Beloit city council post vacated by a resignation. He will serve as a member of the council until next spring to complete this term.

—△—

Dr. E. H. Grumke, formerly of Limeridge, has recently moved to Madison, and his offices are located at 2333 Atwood Avenue.

—△—

Dr. W. P. Blount, Milwaukee, has announced that Dr. R. P. Montgomery is associated with him now as a specialist in bone and joint surgery at Suite 1438-1445 Wells Building. Doctor Montgomery has been assistant professor of orthopedics at the University of Wisconsin and assistant surgeon at the Wisconsin Orthopedic Hospital for the last few years.

—△—

Dr. and Mrs. Louis Milson, of Green Bay, have returned from a three months' stay in Europe. Doctor Milson worked in the Gynecological Clinic of Professor Weibel at the University of Vienna.

—△—

Dr. Chalmer Davee, who for the last several years has been associated with Dr. C. A. Dawson of River Falls, has moved to Madison where he will be affiliated with the University of Wisconsin School of Medicine and the student health service.

—△—

Dr. E. B. Brown has been appointed as Beloit college physician for the coming year, succeeding the late Dr. Paul Fox.

—△—

Dr. J. D. Fuller, who was formerly located at Brownsville and Brandon, has opened offices in Lomira.

"Ladies and Gentlemen—

YOUR HEALTH" RETURNS TO THE AIR

On October 13, at 4:00 p. m., the American Medical Association will again present a series of dramatic programs similar in character to the series presented last year. The programs will be built around the central theme—"100,000 American physicians in great cities and tiny villages, who are members of the American Medical Association and of county and state medical societies, stand ready, day and night, to serve the American people in sickness and in health."

Radio listeners in Wisconsin will hear these excellent programs over the Red network of the National Broadcasting Company each Tuesday at 4:00 p. m. C. S. T. Following are the stations in and near Wisconsin to which this program will be made available:

WIBA, Madison
WTMJ, Milwaukee
WEBC, Duluth–Superior
WMAQ, Chicago
KSTP, Minneapolis–St. Paul
WLW, Cincinnati

There is no assurance that all of the stations in the Red network listed above will carry the health program of the American Medical Association, but if sufficient local interest is evidenced, no doubt the stations can be prevailed upon to broadcast the series.

Dr. and Mrs. Milton Trautmann, of Prairie du Sac, left September 20 for Baltimore, where Doctor Trautmann will take a nine months' postgraduate course at Johns Hopkins Medical School.

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Dr. L. R. Cole, formerly assistant physician of the student health department, has been named director of the Department of Student Health of the University of Wisconsin. Dr. Charles E. Lyght, who formerly held this position, has been appointed as director of student health and physical education at Carleton College, Northfield, Minnesota.

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Dr. E. B. Pfefferkorn has returned to Oshkosh to practice having submitted his resignation at the State Health Department in Madison, where he has held the office of deputy state health officer since March 1.

BIRTHS

A son to Dr. and Mrs. T. A. Hagerup, of Dodgeville.

A son to Dr. and Mrs. L. J. Schoenbechler, of Omro, on September 4.

MARRIAGES

Dr. E. A. Weller, Stevens Point, and Miss Freda Damgaard, Superior, on August 8.

Dr. Raymond H. Quade, Milwaukee, and Miss Maxine Baumgartner, Monroe, on September 5.

Dr. J. F. Moon, Baraboo, and Miss Virginia Squires, Baraboo, on August 15.

DEATHS

Dr. Charles F. Werner, physician in St. Cloud for the last twenty-two years, died suddenly of heart disease on August 29. He was born January 12, 1874, was graduated from the University of Illinois College of Medicine in 1905, and practiced in Calumetville before locating in St. Cloud.

Dr. Werner was a member of the Fond du Lac County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

Surviving are his widow, a sister, and three brothers.

Dr. John A. Gillen, Rice Lake, died suddenly in St. Francis Hospital, Evanston, Illinois, on September 1. He was born in 1904 and after graduating from the University of Minnesota Medical School, he served internships at the Gallagher Municipal Hospital, Washington, D. C., the Swedish Hospital, Minneapolis, and the Packer Hospital, Sayre, Pennsylvania. Dr. Gillen came to Rice Lake early in 1935 and joined the Lakeside Clinic in June of that year.

He was a member of the Barron-Washburn-Sawyer–Burnett County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

Surviving are his widow, his parents, and three sisters.

Dr. Edward B. Taylor, for thirty years a Milwaukee physician, died at his summer home at Rochester, Wisconsin, on September 1. He was born at Pewaukee in 1874, was graduated from the Hahnemann Medical College, Chicago, in 1880, and for several years practiced in Rochester, Burlington, and Troy Center before locating in Milwaukee. He is survived by his widow, two sons, and a brother.

Dr. James T. Ozanne, for nearly fifty years a practicing physician of Oshkosh, died August 13 at the Mercy Hospital. He was born at Somers, Wisconsin, in 1853, attended Northwestern University, and was graduated from Hahnemann Medical College, Chicago, in 1880. He practiced medicine for a short time in Desmet, South Dakota, and in Horicon before locating in Oshkosh. He is survived by his widow, two sons, a sister, and two brothers.

Dr. Torstein A. Lid, pioneer Marinette physician, died August 15. He was born in 1867 in Norway, coming to the United States in 1888. After graduation from the University of Illinois College of Medicine in 1896, he served as surgeon at the West Side Hospital, Chicago, for a year before locating in Marinette. He is survived by his widow, a daughter, and a son.

Doctor Lid was a member of the Marinette-Florence County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association. In 1904 he was appointed by Governor La Follette as a member of the International Congress of Tuberculosis in St. Louis, Missouri. He was also a delegate to the Anti-Tuberculosis Convention held in Atlanta, Georgia, in 1905.

Dr. E. E. Whitehorne, of Vesper, who had been in poor health since the first of the year, died on September 16. Born in Nashville, Tennessee, in 1856, he was graduated from Albany Medical College, New York, and served his internship in the New York City Hospital. Specializing in mental disorders, he was later connected with the Belleview Hospital for insane at Batavia, Illinois. Before locating in Vesper twenty-seven years ago, he practiced in Nebraska and also in Spring Green, Arena, and Mazomanie in Wisconsin. Surviving are his daughter, one sister, and four grandchildren.

Doctor Whitehorne was a member of the Wood County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

Dr. Matthew McGonigal, who had practiced in Loyal for thirty years, died on September 20. He was born in Newboro, Ontario, in 1874 and was graduated from Queen's University Faculty of Medicine, Kingston, Ontario, in 1904. He is survived by his widow, a brother, and two sisters, all of Loyal.

SOCIETY RECORDS

New Members

S. A. Konz, 102 E. College Ave., Appleton.

M. M. Hipke, Port Washington.

M. A. Borchardt, New London.

J. E. Hanko, Cazenovia.

A. H. Robinson, 212 W. Wis. Ave., Milwaukee.

V. A. Lookanoff, Middle River Sanatorium, Hawthorne.

F. A. Kroeplin, Stratford.

J. E. Mannion, Wisconsin Rapids.

N. C. Risjord, Highwood, Illinois.

L. H. Donath, Lake Geneva.

Changes in Address

E. H. Grumke, Limeridge, to 2333 Atwood Ave., Madison.

J. E. Bentley, Portage, to University Infirmary, Madison.

W. S. Marshall, Appleton, to 621 Capstone Court, Tuscaloosa, Ala.

W. A. Rauch, West Ellis, to 2002 Wollmer St., Manitowoc.

C. J. Radl, Pardeeville, to Wisconsin Dells.

Harry Vander Kamp, Tomah, to Baraboo.

G. J. Maloof, Wauzeka, to 19 N. Pinckney St., Madison.

R. P. Montgomery, Madison, to 324 E. Wis. Ave., Milwaukee.

S. M. Welsh, La Crosse, Beaumont Hospital, Prairie du Chien.

Attorney General Finnegan Holds Chiropractors Can Be Reimbursed For Treating Indigent Sick

CHIROPRACTORS may be reimbursed from public funds for giving chiropractic treatment to the indigent, sick of Wisconsin under relief authorizations.

This was the opinion of Attorney General James E. Finnegan to the Board of Examiners of Chiropractics on July 24, published in Opinions of the Attorney General in early September. Attorney General Finnegan held that the term "medical relief" as enacted in the statutes of the State decades before chiropractic was known, "includes relief given by chiropractors."

In his opinion Attorney General Finnegan cited five older opinions of the department declaring that chiropractors are not physicians; a Supreme Court case holding that treatment of injuries by a registered chiropractor under the Compensation Act was not allowable but he declared that "practice of chiropractic was generally recognized as a healing art designed to repair abnormal states of the body." Further, inasmuch as the Supreme Court in refusing chiropractors the right to treat compensation cases had included the statement that their treatment is medical treatment, Attorney General Finnegan ruled that "the term 'medical relief' as used in Section 49.18 (1) includes relief given by chiropractors."

The opinion was given at a time when the identical question was before the Corporation Counsel of Milwaukee County on reference from the County Board to whom chiropractors in Milwaukee County were appealing for the right to treat relief cases.

Legal counsel points out, however, that despite the attorney general's opinion (which is not a court determination) chiropractors may not recover unless local relief officials have given prior authorization. Secondly, inasmuch as the attorney general's opinion is not a court determination of the law, local relief officials who authorize chiropractic treatment, heretofore never given in the State under these statutes, may assume the risk of a taxpayer's action.

Mr. Finnegan's opinion follows:

Indigent, Insane, etc. — Poor Relief — Public Health — Chiropractors — Medical Relief — Term "medical relief" as used in sec. 49.18, subsec. (1), Stats., includes relief given by chiropractor.

July 24, 1936.

BOARD OF EXAMINERS IN CHIROPRACTIC,
Madison, Wisconsin.

You desire to know whether the term "medical relief" as used in sec. 49.18, Stats., includes chiropractic treatment. Sec. 49.18, subsec. (1), requires a municipality liable for the relief of an indigent to provide *temporary medical relief* when reason therefor exists. This department has held that chiropractors are not physicians. XVII Op. Atty. Gen. 318; XVI Op. Atty. Gen. 95; XIV Op. Atty. Gen. 442, 449, 482.

Our supreme court in *Corsten v. Industrial Comm.* 207 Wis. 147, held that the charges of a registered chiropractor for treatment of injuries sustained by an injured workman covered by the compensation act were not allowable by the industrial commission. This case was based upon the proposition that the legislature intended to allow the expense of treatment only when given by a physician. Sec. 102.09 (1), Stats. 1927, provided that the expense of medical, surgical and hospital treatment was recoverable, but the court pointed out that in other sections of the compensation act such as secs. 102.13 and 102.09 (2), referred to treatment by physicians and accordingly held that sec. 102.09 (1) meant that the treatment would be given by physicians rather than chiropractors. Accordingly this case and the opinions cited are not authority in the present instance since sec. 49.18 provides for medical relief but does not require that such relief be given by a physician.

In *Peoples ex rel. Fred W. Gage v. John Siman et al.*, 278 Ill. 256, 115 N. E. 817, the court said, p. 257:

> "* * * The term 'medicine' is not limited to substances supposed to possess curative or remedial properties, but has also the meaning of the healing art,—the science of preserving health and treating disease for the purpose of cure,—whether such treatment involves the use of medical substances or not. * * *"

In *State v. Morrison*, 127 S. E. 75, the West Virginia court stated, pp. 78-79, quoting from *Commonwealth v. Zimmerman*, 221 Mass. 184:

> "'"Medicine" relates to the prevention, cure, and alleviation of disease, the repair of injury, or treatment of abnormal or unusual states of the body and their restoration to a healthful

condition. * * * It is not confined to the administering of medicinal substances or the use of surgical or other instruments. * * *' "

The practice of chiropractic is generally recognized as a healing art designed to repair abnormal states of the body. The laws of this state regulating chiropractic are a part of ch. 147, entitled "Treating the Sick." Our supreme court in the *Corsten* case stated that for the purposes of that chapter "their treatment (chiropractors) is 'medical treament.' " (p. 148.)

Accordingly we hold that the term "medical relief" as used in sec. 49.18 (1) includes relief given by chiropractors. JEF

Over 1,400 Attend Ninety-Fifth Anniversary Meeting at Madison; Dr. James C. Sargent, Milwaukee, Named President-Elect

WITH registration that included over 800 members, 350 physician guests, and close to 300 members of the Auxiliary, the Ninety-Fifth Anniversary meeting at Madison combined with the Cancer Institute brought one of the largest attendances in the history of the Society.

Dr. James C. Sargent, Milwaukee, vice-speaker of the House of Delegates in 1935, was named president-elect of the Society at the final meeting of the House of Delegates. His election was unanimous. Other officers elected at the sessions included:

Dr. A. E. Rector, Appleton, speaker of the House of Delegates.

Dr. Henry J. Gramling, Milwaukee, vice-speaker of the House of Delegates.

Dr. J. Gurney Taylor, Milwaukee, re-elected delegate to the American Medical Association.

Dr. Gunnar Gundersen, La Crosse, delegate to the American Medical Association to succeed Dr. W. E. Bannen, La Crosse.

Dr. Stanley J. Seeger, Milwaukee, re-elected alternate delegate to the American Medical Association.

Dr. R. G. Arveson, Frederic, alternate delegate to succeed Dr. Stephen E. Gavin, Fond du Lac.

Councilors

First District: Dr. A. W. Rogers, Oconomowoc, re-elected.

Second District: Dr. Frank W. Pope, Racine, re-elected.

Fifth District: Dr. A. H. Heidner, West Bend, elected to fill unexpired term of Dr. C. M. Gleason, deceased.

Eleventh District: Dr. F. G. Johnson, Iron River, re-elected.

Twelfth District: Dr. Joseph Lettenberger, Milwaukee, to succeed Dr. R. W. Blumenthal.

The entire Memorial Union Building on the campus of the University was devoted to housing the scientific sessions of the annual meeting. A large number of technical exhibits were located on the ground floor with extensive scientific exhibits in adjacent halls. The scientific exhibits, with demonstrators present at all recess periods, were pronounced by the members as the most valuable in the history of the Society. The halls for the general sessions, sectional meetings, and round tables were filled to capacity practically throughout the meeting.

At the annual dinner of the Society held on Thursday evening, September 10, Dr. Morris Fishbein, Chicago, was the sole speaker, and the large ballroom of the Loraine Hotel was taxed to capacity to hold the members and their wives. Upward of 450 attended the dinner meeting.

On the previous evening Prof. J. H. Kolb, director of the Governor's Committee on Public Welfare, and Mr. J. G. Crownhart, secretary of the Society and acting chairman of the Subcommittee on Health and Disability, presented concepts and preliminary effort in this field, which has as its aim the better application of the preventive aspects of medicine. At the smoker immediately following this session the members were entertained by the Heidelberg Octette of Chicago.

While places were reserved for 260 members at the twelve round-table luncheons on Thursday noon, upward of 100 were unable to gain admittance. Substantially all round-table reservations made by mail were accep-

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OF PHILADELPHIA

ted, but despite the fact that the accommodations of this year were increased by 100, taxing the capacity of the Loraine Hotel, late registrants could not be accommodated. Members of the Committee on Scientific Work announced that at future sessions additional accommodations would be provided with second and third sections to the end that all might participate in the discussion groups.

House of Delegates Establishes Important Policies

WITH the freest of discussion from the floor which included several discussions by non-members of the House, the 1936 House of Delegates spent close to ten hours in formal sessions, with reference committees of the House in session more than four hours each, additional. Committee appointments of President Stephen E. Gavin, Fond du Lac, confirmed by the House, follow:

1. The Committee on Public Policy:
   Carl W. Eberbach, Milwaukee
2. The Editorial Board:
   George H. Ewell, Madison
3. The Committee on Medical Defense:
   A. J. Patek, Milwaukee
4. The Committee on Medical Education and Hospitals:
   Francis D. Murphy, Milwaukee
5. The Committee on Medical Economics:
   A. E. McMahon, Glenwood City
6. The Committee on Health and Public Instruction:
   E. E. Kidder, Stevens Point
7. The Cancer Committee:
   H. T. Barnes, Delafield, First District
   D. J. Twohig, Fond du Lac, Sixth District
   G. W. Krahn, Oconto Falls, Eighth District
   C. W. Giesen, Superior, Eleventh District
8. The Committee on Medical Care for Veterans:
   Otho A. Fiedler, Sheboygan
   R. B. Rogers, Neenah
   H. A. Keenan, Stoughton
9. The Committee on Medical History:
   F. Gregory Connell, Oshkosh (power to appoint associates)
10. The Committee on Institutional Care and Mental Hygiene:
    A. W. Bryan, Madison
    J. M. Conley, Oshkosh
    J. L. Garvey, Milwaukee

A stenotype report of the entire proceedings of the House will appear in an early issue of the Journal. Summarizing, the House adopted the following policies:

1. Following reference to it by the Council of an interim resolution relating to participation of physicians in joint finance-collection schemes, the House with but three dissenting votes formally adopted as its own statement of policy the identical resolution.
2. In the second resolution the House declared that all members contemplating participation in plans for medical service which do not provide for unrestricted free selection of physician by the patient himself, shall submit the terms of such plans to their component county medical society prior to entering into them.
3. Adopting the suggestion of the Committee on Resolutions, the House approved the appointment of a special committee on the subject of credits and collections with representation thereon from each councilor district.
4. Dues for 1937 will be maintained at $15.
5. Rejected a proposal that the investigator to weed out quackery should be transferred to the jurisdiction of the State Board of Medical Examiners from the State Board of Health, but urged that closer cooperation be secured between the investigator and the State Board of Medical Examiners.
6. Adopted a resolution urging legislation requiring that applicants for license be either citizens of the United States or hold licenses to practice in the countries in which their medical education was completed.
7. In the field of pathology and radiology the House re-affirmed its position that questions on hospital practice should be handled through the grievance committee of the component county medical society.
8. Endorsed legislation looking toward examination of applicants for driver's license.

9. Urged the elimination of ragweed as the most common source of hay fever.

10. Selected Milwaukee as the meeting place for 1937, and received an invitation from Racine for the 1938 meeting.

11. Granted petitions so that henceforth the Columbia County Medical Society will be known as the Columbia-Marquette-Adams County Medical Society, and the heretofore Green Lake-Waushara-Adams will be known as the Green Lake-Waushara County Medical Society.

12. Rejected the two amendments to the constitution following: (a) Election of councilors at councilor district meetings, (b) additional councilor in councilor districts wherein the membership exceeds 250.

Two Important Resolutions Adopted by the House

THE two outstanding resolutions adopted by the House of Delegates follow:

Participation in Plans

WHEREAS, Sec. 4, Article VI, Chapter III of the Principles of Medical Ethics of the American Medical Association provides that—

> "It is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group or individual, by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary, or compensation received to accrue to the lay body or individual employing him. Such a procedure is beneath the dignity of professional practice, is unfair competition with the profession at large, is harmful alike to the profession of medicine and the welfare of the people, and is against sound public policy," and

WHEREAS, Any individual, group or organization, however formed or by whatever name called, who shall provide or who shall propose to provide or make available medical service or hospital care or both to any person or group of persons is obviously purposing and proposing to make available the service of a physician or physicians, and

WHEREAS, Any plan for the distribution of medical service or hospital care in any manner or through any agency that does not insure the unrestricted free selection of his physician by the patient himself is fraught with harmful implications and dangerous possibilities alike to the profession of medicine and the welfare of the people, therefore

Be it resolved by the House of Delegates of the State Medical Society of Wisconsin that the Board of Censors of the component County Medical Society having geographic jurisdiction shall consider the terms, provisions, and implications of any proposed method or agency that may appear to provide for the distribution of or making available medical service or hospital care other than by permitting the unrestricted free selection of his physician by the patient himself, and said county society shall submit such plan, together with its findings, to the Council of the State Medical Society of Wisconsin for its determination.

Be it further resolved that any physician or group of physicians, before becoming party to or in any other way agreeing to foster or cooperate in any such agency or method for the distribution of medical service or hospital care shall submit the full plan to his county medical society for its consideration and for Council determination.

Be it further resolved that any physician or physicians violating or evading this resolution or any of the terms hereof or who shall fail to abide by the decision of his County Medical Society in these premises as determined by the Council of the State Medical Society of Wisconsin shall be required to appear before the officers (president, vice-president, secretary, treasurer, and delegates or alternate delegates only) of his county medical society and show cause why he should not be charged with unethical conduct under Sec. 4, Art. VI, Ch. III of the principles of medical ethics above quoted, and if found guilty as charged, by expulsion by his county medical society.

Collection-Finance Plans

WHEREAS, The House of Delegates of the State Medical Society of Wisconsin is cognizant of the fact that, in recent months, certain direct loan and discount companies (as distinguished from licensed small loan companies) have expanded their activities into the collection agency field; that, by combining these two fields of business within the one organization, the collection business becomes a "feeder" to the loan business in that thus are secured the names of those who are financially distressed and to whom a loan may appear to be an advantageous and expedient method of alleviating the pressure of indebtedness, and,

WHEREAS, The Banking Commission of the State of Wisconsin, Division of Consumer Credit, by John F. Doyle, Supervisor thereof, and Hon. G. Erle Ingram, special counsel therefor, under date of February 19, 1936, addressed a communication to such

direct loan and discount companies (as distinguished from licensed small loans companies) in which it was stated among other things that it had come to the attention of the Banking Commission that certain loan companies had combined the business of "adjusting accounts, making loans and discounting paper with that of collection"; that it further appearing that in some instances the following had been the practice:

a. "The obligation so signed includes additional amounts for interest or finance charges."
b. In some cases, "cash is not advanced to the creditor to extinguish the debt for which the new obligation is given."
c. That "inasmuch as loans are presumed to be predicated upon actual cash outlays, this procedure makes the addition of interest or finance costs questionable in its relation to the rate set forth in Wisconsin regulatory acts."

WHEREAS, The Banking Commission, in such letter, further stated that such direct loan and discount companies, having anything to do with collections, should maintain a clear cut distinction between loans and collections, and "no method of operation should be adopted which uses the relationship between debtor, creditor and loan company for the purpose of subterfuge to induce loans to be made which would not be made in the ordinary course of the loan business." That if "the loan is merely predicated upon a plan whereby the creditor is the dominating figure in making a loan which would not have otherwise been granted to the debtor himself, then this is not a proper loan transaction and should be handled as an ordinary collection. If notes are to be taken, or new evidences of indebtedness entered into, they should be made directly to the creditor, who may, if he desires, assign them for collection, but in no instance should such note or evidence of indebtedness be made directly to a finance company, thus incurring additional interest and finance costs when they are not as a matter of fact loans," and,

WHEREAS, The Commission further stated "that it is better for finance and loan companies to refrain from combining in the same office collection business with the loan business. If it is desired to operate both lines of business there should be a segregation of each with separate and distinct offices, which said offices should be operated under different names and as separate entities. It is hoped that any companies now combining both functions in the same office will gradually segregate each line and establish separate offices as we consider this to be better business practice," and

WHEREAS, Certain such loan and discount companies (as distinguished from licensed small loan companies) are continuing to solicit the physicians of this state for their collection business, and it having become increasingly apparent to the Council that physicians are not aware of the grave professional problems involved by their participation in any such collection and financing scheme, or the true costs to the patient thereof; and

WHEREAS, The Council believes that if physicians generally, or any of them, participate in such schemes, there will inevitably result therefrom:

1. A loss of public respect of the medical profession in its devotion, not only to the public health, but to the broad field of public welfare;
2. The loss of the physician-patient mutual friendship and confidence which now exists so strongly as to be, individually, a bond of affection and regard;
3. A commercializing of the profession of medicine in that the physician becomes a party to a contract in which his patients are induced to use high interest rate procedures to finance costs of medical care. Such procedure does not reflect the true position of the medical profession of this state.
4. An increase in cost to the patient in obtaining, and to a lesser degree, to the physician in supplying, needed medical care.

Now, therefore, be it resolved, By the House of Delegates of the State Medical Society of Wisconsin, acting under the powers granted to it by the constitution and by-laws of this Society, that the participation in any such collection scheme by any physician a member of any county society, and by reason thereof, a member of this Society and of the American Medical Association, shall be, and hereby is declared to be an act of unprofessional and unethical conduct and therefore, shall be, and is hereby declared to be, good and sufficient cause for the revocation of membership in such society.

Be it further resolved, That the Secretary of this Society immediately advise the membership of this resolution, which shall thereupon become effective and in full force.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next written examination and review of case histories of Group B applicants by the American Board of Obstetrics and Gynecology will be held in the various cities in the United States and Canada on Saturday, November 7, 1936, and on Saturday, March 6, 1937.

The next general examination for all candidates (Groups A and B) will be held in Atlantic City, N. J., on June 8 and 9, 1937.

Application blanks and booklets of information may be obtained from Dr. Paul Titus, secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania. Applications for these examinations must be filed in the Secretary's office not later than sixty days prior to the scheduled date of examination.

Physician Registrants at Madison Meeting

MEMBERS

Aageson, C. W.—Madison
Abelman, T. C. H.—Watertown
Ackerman, E. T.—Gays Mills
Allen, J. P.—Beloit
Allen, S. C.—Waterloo
Allen, W. J.—Beloit
Anderson, N. P.—La Crosse
Andrews, M. P.—Manitowoc
Armstrong, C. A.—Prairie du Chien
Archer, W. E.—Dale
Arveson, R. G.—Frederic
Atherton, C. C.—Union Grove
Atwood, David—Madison

Bach, M. J.—Milwaukee
Bachhuber, A. E., Sr.—Mayville
Bachhuber, H. A.—Sauk City
Backus, O. A.—Nekoosa
Bailey, M. A.—Fennimore
Baird, J. C.—Eau Claire
Baldwin, F. H.—Bloomington
Baldwin, R. S.—Marshfield
Bannen, W. E.—La Crosse
Banyai, A. L.—Wauwatosa
Bargholtz, W. E.—Reeseville
Barnes, H. A.—Milwaukee
Barnet, E. G.—Wisconsin Rapids
Bartels, G. W.—Janesville
Bauer, K. T.—West Bend
Batty, A. J.—Portage
Bear, N. E.—Monroe
Bear, W. G.—Monroe
Becker, B. A.—Silver Lake
Becker, W. C.—Watertown
Beebe, S. D.—Sparta
Beeson, H. B.—Racine
Behnke, C. H.—Oshkosh
Beler, A. L.—Chippewa Falls
Bell, A. R.—Tomah
Belting, G. W.—Orfordville
Benn, H. P.—Stevens Point
Bennett, L. J.—Wisconsin Rapids
Benson, G. B.—Richland Center
Benson, G. H.—Richland Center
Bentley, J. E.—Madison
Benton, J. L.—Appleton
Bertolaet, E. E.—Palmyra
Bill, B. J.—Genoa City
Bilstad, G. E.—Cambridge
Binnewies, F. C.—Janesville
Binnie, H. A.—Kenosha
Bird, M. D.—Marinette
Bitter, R. H.—Oshkosh
Blanchard, P. B.—Cedarburg
Blackbourn, F. E.—Cassville
Bleckwenn, W. J.—Madison
Blewett, M. T.—Markesan
Blom, Julius—Woodville
Blount, W. P.—Milwaukee
Blumenthal, R. W.—Milwaukee
Bock, A. B.—Sheboygan
Boersma, J. J.—Sheboygan
Boner, A. J.—Madison
Booher, J. A.—La Valle
Boren, J. W.—Marinette
Borman, M. C.—Milwaukee
Borsack, K. K.—Fond du Lac
Bourne, N. W.—Milwaukee
Boudry, M. O.—Waupaca
Bowen, E. W.—Watertown
Bowen, H. P.—Watertown
Bowing, I. E.—Kenosha
Boyce, S. R.—Madison
Bradley, H. C.—Madison
Brennan, F. J.—Oshkosh
Brewer, J. C.—Jefferson
Brickbauer, A. J.—Plymouth
Brindley, B. I.—Madison
Brook, J. J.—Milwaukee
Brooks, E. H.—Appleton
Brown, G. V. I.—Milwaukee
Browne, C. F.—Racine
Bryan, A. W.—Madison
Buckley, R. A.—Durand
Buckley, W. E.—Racine
Buckner, H. M.—Mt. Horeb
Buerki, R. C.—Madison
Bump, W. S.—Rhinelander
Bunting, C. H.—Madison
Burke, C. F.—Madison
Burke, M. E.—Madison
Burns, R. E.—Madison
Busse, A. A.—Jefferson
Butler, F. E.—Menomonie

Cairns, Rolla—River Falls
Caldwell, H. C.—St. Croix Falls
Caldwell, H. M.—Columbus
Calvert, Charlotte—Madison
Campbell, P. E.—Waukesha
Campbell, R. E.—Madison
Cantwell, A. A.—Shawano
Cantwell, R. C.—Shawano
Carey, E. J.—Milwaukee
Carlson, G. W.—Appleton
Carns, Marie L.—Madison
Carson, W. J.—Milwaukee
Carter, H. M.—Madison
Carter, R. M.—Green Bay
Cary, E. C.—Reedsville
Casper, S. L.—Wauwatosa
Chorlog, J. I.—Madison
Chorlog, J. K.—Madison
Christensen, F. C.—Racine
Christensen, H. H.—Wausau
Christensen, H. W.—Mauston
Christiansen, James—Waukesha
Christofferson, A. M.—Waupaca
Christofferson, H. H.—Colby
Clark, F. T.—Waupun
Clark, O. C.—Oconomowoc
Clark, P. F.—Madison
Clark, W. T.—Janesville
Clauson, C. T.—Bloomer
Cleveland, David—Milwaukee
Cline, Frances A.—Madison
Cole, D. F.—Ripon
Cole, L. R.—Madison
Collins, J. J.—Racine
Coluccy, M. J. J.—Madison
Comstock, Elizabeth—Arcadia
Conley, J. M.—Oshkosh
Coon, H. M.—Stevens Point
Connell, F. Gregory—Oshkosh
Constantine, C. E.—Racine
Conway, J. P.—Milwaukee
Copps, L. A.—Marshfield
Cornwall, W. B.—Amery
Corso, Xavier—Beaver Dam
Costello, W. H.—Randolph
Cottingham, M. D.—Kohler
Creasy, L. E.—Monroe
Cremer, C. H.—Cashton
Cron, R. S.—Milwaukee
Crosby, E. P.—Stevens Point
Cummings, E. F.—Oshkosh
Cunningham, Wilson—Platteville
Currer, P. M.—Milwaukee
Cushing-Lippitt, E.—Milwaukee

Dallwig, E. L.—Milwaukee
Danforth, H. C.—Janesville
Danforth, Q. H.—Oshkosh
Davee, Chalmer—River Falls
Davies, R. E.—Waukesha
Davin, C. C.—Kenosha
Davis, F. A.—Madison
Dawson, C. A.—River Falls
Dawson, D. L.—Rice Lake
Dean, J. P.—Madison
Dean, Joseph—Madison
Dean, Joseph C.—Madison
Deerhake, W. A.—Waupun
De Fazio, S. F.—Kenosha
Dempsey, G. P.—South Milwaukee
Dennis, J. F.—Waterloo
De Nosaquo, Samuel—Milwaukee
Devine, G. C.—Ontario
Dickelmann, L. E.—Oshkosh
Dierker, O. F.—Watertown
Dieterle, J. O.—Milwaukee
Dike, B. H.—Owen
Dimond, W. B.—Madison
Docter, John—Racine
Doege, K. H.—Marshfield
Doege, P. F.—Marshfield
Donlin, W. F.—Belleville
Dorr, A. M.—Milwaukee
Drew, F. E.—Milwaukee
Drissen, W. H.—Pt. Washington
Duer, G. R.—Marinette
Dull, C. F.—Richland Center
Dunn, A. G.—Stevens Point

Eagan, R. L.—La Crosse
Eberbach, C. W.—Milwaukee
Ebert, R. O.—Oshkosh
Echols, C. M.—Milwaukee
Edmondson, C. C.—Waukesha
Edwards, W. C.—Richland Center
Egloff, L. W.—Pewaukee
Eigenberger, Friedrich—Sheboygan
Eisenberg, P. J.—Milwaukee
Ellis, I. G.—Madison
Enzer, Norbert—Milwaukee
Epley, O. H.—New Richmond
Erickson, M. T.—Highland
Evans, J. A.—La Crosse
Ewell, G. H.—Madison

Farnsworth, F. B.—Janesville
Farnsworth, R. W.—Janesville
Fechtner, H. H.—Wausau
Fencil, Y. J.—Casco
Ferguson, F. H.—Elroy
Fernan-Nunez, Marcos—Milwaukee
Festerling, E. G.—Milwaukee
Fiebiger, G. J.—Waterloo
Fiedler, O. A.—Sheboygan
Fifield, G. W.—Janesville
Fillbach, H. E.—Hazel Green
Finn, W. C.—Fond du Lac
Fisher, R. F.—Wausau

Fisher, R. S._____Allenton
Fitzgerald, R. E._____Milwaukee
Fletcher, W. T._____Salem
Florin, A. C._____Fond du Lac
Flynn, R. E._____La Crosse
Focke, W. J._____Poynette
Foerster, H. R._____Milwaukee
Ford, W. A._____Sheboygan
Fortner, W. H._____Bloomer
Fortier, C. A. H., Jr._____Milwaukee
Foshion, H. V._____Algoma
Fox, G. W._____Milwaukee
Francois, S. J._____New Glarus
Frechette, F. M._____Janesville
Frederick, R. H._____West Allis
Fredrick, H. H. F._____Westfield
Fredrick, H. Y._____Westfield
Freeman, J. M._____Wausau
Freitag, S. A._____Janesville
Frick, J. C._____Waukesha
Frick, Lewis_____Athens
Friedbacher, Karl_____West Allis
Frisbie, R. L._____Rhinelander
Friske, O. W._____Beloit
Froede, H. E._____Jackson
Froelich, J. A._____Milwaukee
Fuller, J. D._____Brandon

Gabor, M. E._____Milwaukee
Galasinki, R. E._____Milwaukee
Gale, J. W._____Madison
Gallaher, D. M._____Appleton
Ganser, W. J._____Madison
Garding, C. J._____Jefferson
Garland, J. G._____Milwaukee
Garrison, R. E.__Wisconsin Rapids
Garvey, J. L._____Milwaukee
Gates, A. J._____Tigerton
Gavin, S. E._____Fond du Lac
Gebhard, U. E._____Milwaukee
Gibson, H. V._____Fairchild
Giesen, C. W._____Superior
Gilbertsen, C. R._____Janesville
Gillette, H. E._____Pardeeville
Glasier, Mina B._____Bloomington
Glynn, J. D._____Lancaster
Gnagi, W. B._____Monroe
Gnagi, W. B., Jr._____Monroe
Goedecke, R. H._____West Salem
Gonce, J. E., Jr._____Madison
Gramling, E. H._____Milwaukee
Gramling, F. K._____Milwaukee
Gramling, H. J._____Milwaukee
Gramling, J. J._____Milwaukee
Gray, R. J._____Evansville
Greeley, H. P._____Madison
Green, M. K._____Mendota
Greene, H. L._____Madison
Grimm, J. J._____Milwaukee
Ground, W. E._____Superior
Grove, W. E._____Milwaukee
Grover, F. L._____Hartland
Gruesen, F. A._____Ft. Atkinson
Grumke, E. H._____Madison
Gudex, V. A._____Milwaukee
Guenther, O. F._____Campbellsport
Guilford, H. M._____Madison
Gullfoyle, J. P._____Evansville
Gundersen, A. H._____La Crosse
Gundersen, Gunnar_____La Crosse
Gundersen, S. B._____La Crosse
Gute, E. B._____Milwaukee
Guth, H. K._____Waupun

Hagerup, T. A._____Dodgeville
Hammond, F. W._____Manitowoc
Hammond, R. W._____Manitowoc
Hanko, J. E._____Cazenovia

Hankwitz, A. W._____Milwaukee
Hansen, H. J._____Sheboygan Falls
Hansen, John_____Glenbeulah
Hanson, L. E._____Holmen
Hardgrove, Maurice ____Milwaukee
Harper, C. A._____Madison
Harper, C. S._____Madison
Harrington, T. L._____Milwaukee
Harris, A. J._____Friendship
Harris, J. W._____Madison
Hartman, E. C._____Janesville
Harvey, J. R._____Footville
Hassall, J. C._____Oconomowoc
Hayman, C. S._____Boscobel
Hebenstreit, A. J._____Juneau
Heeb, H. J._____Milwaukee
Hefke, H. W._____Milwaukee
Heidner, A. H._____West Bend
Heidner, F. C._____Milwaukee
Heise, H. A._____Milwaukee
Helmes, L. O._____Oshkosh
Hemmingsen, T. C._____Racine
Henderson, R. J._____Tomahawk
Henken, J. F._____Racine
Henika, G. W._____Madison
Henney, C. W._____Portage
Heraty, J. E._____La Crosse
Herner, W. L._____Milwaukee
Herzog, J. V._____Elkhorn
Hess, J. S., Jr._____Mauston
Hicks, E. V._____Blanchardville
Higgins, S. G._____Milwaukee
Hildebrand, G. J._____Sheboygan
Hill, N. A._____Madison
Hipke, L. W._____Milwaukee
Hirsh, L. H._____West Allis
Hitz, J. B._____Milwaukee
Hoel, K. P._____Statesan
Hoffmann, J. G._____Hartford
Hofmeister, F. J._____West Allis
Hogan, J. M._____Oshkosh
Hood, A. J._____Milwaukee
Horn, A. S._____Stoughton
Horwitz, J. J._____Milwaukee
Hosmer, M. S._____Ashland
Hougen, Edw.___Wisconsin Rapids
Hough, A. G._____Beaver Dam
Howard, M. Q._____Wauwatosa
Howard, T. J._____Milwaukee
Howell, E. C._____Fennimore
Hoyme, Gjermund_____Eau Claire
Hoyt, G. E._____Milwaukee
Hudson, E. D._____Lake Geneva
Hudson, L. A._____Sauk City
Hughes, B. J._____Winnebago
Hugo, D. G._____Oshkosh
Hull, H. H._____Brandon
Hurlbut, J. A._____Madison
Hutter, A. M._____Fond du Lac
Hyslop, V. B._____Madison

Irvine, R. K._____Manawa
Irwin, G. H._____Lodi
Irwin, H. J._____Baraboo
Irwin, R. S._____Milwaukee
Ison, G. W._____Crandon

Jackson, A. S._____Madison
Jackson, J. A., Jr._____Madison
Jackson, R. H._____Madison
Jamieson, R. D._____Racine
Jandrain, R. R._____Luxemburg
Janney, F. R._____Wauwatosa
Jeffers, D. H._____Lake Geneva
Jegi, H. A._____Galesville
Jenner, J. A._____Milwaukee
Jensen, F. G._____Menasha
Jermain, W. M._____Milwaukee

Jewell, E. L._____Loganville
Johnson, Frances _____Milwaukee
Johnson, F. G._____Iron River
Johnson, H. C._____Madison
Jones, G. S._____Cottage Grove
Jones, M. L._____Wausau
Jones, W. J._____La Crosse
Jorgenson, H. L._____Marinette
Juers, R. H._____Wausau
Juster, E. M._____Madison

Kaiser, L. F._____Rhinelander
Karnopp, G. L._____Wautoma
Karsten, J. H._____Horicon
Kasak, Michael_____Wauwatosa
Kasten, H. E._____Beloit
Kay, H. M._____Madison
Kearns, W. M._____Milwaukee
Keck, E. B._____Madison
Keenan, H. A._____Stoughton
Keithley, J. W._____Beloit
Keland, H. B._____Racine
Kellogg, J. R._____Portage
Kelly, G. F._____Milwaukee
Kelly, W. J._____Potosi
Kidder, E. E._____Stevens Point
King, J. J._____Milwaukee
King, J. M._____Milwaukee
Kishpaugh, H. W._____Beloit
Klein, T. W._____Janesville
Kleinpell, W. C._____Madison
Knox, E. S._____Green Bay
Koch, V. W._____Janesville
Koehler, A. G._____Oshkosh
Kohl, Martha_____Eau Claire
Kosanke, F. E._____Watertown
Krahn, G. W._____Oconto Falls
Krehl, W. H._____Madison
Kreul, R. W._____Racine
Krohn, I. K.____Black River Falls
Krohn, Robert__Black River Falls
Kristjanson, H. T._____Milwaukee
Kuegle, F. H._____Janesville
Kult, A. S._____Milwaukee
Kusterman, A. F._____Milwaukee
Kurten, R. M._____Racine
Kurtz, C. M._____Madison

Lacke, C. L._____Madison
Ladewig, H. C._____Milwaukee
Lahmann, A. H._____Milwaukee
Laird, J. J._____Black Creek
Lambert, J. W._____Antigo
Langjahr, A. R._____Milwaukee
Lapp, H. D._____Janesville
Layton, O. M._____Fond du Lac
Leahy, J. D._____Park Falls
Lee, H. J._____Oshkosh
Lee, J. H._____Madison
Leeson, F. W._____Beloit
Leicht, Phillip_____Lake Mills
Lemmer, K. E._____Madison
Leonard, C. W._____Fond du Lac
Leonard, T. A., Jr._____Madison
Lettenberger, Jos._____Milwaukee
Lewis, C. N._____Madison
Lewis, Marian _____Milwaukee
Lieberman, Benj._____Milwaukee
Liefert, W. C._____Milwaukee
Lifschutz, L. M._____Racine
Lindner, A. M._____Racine
Lindsay, W. T._____Madison
Lipman, W. H._____Kenosha
Littig, L. V._____Madison
Lockhart, C. W._____Mellen
Lookanoff, V. A._____Hawthorne
Looze, J. J._____Wisconsin Rapids
Lorenz, W. F._____Madison

Lotz, Oscar ----------Milwaukee
Loughnan, A. J.------Oconomowoc
Lowe, J. W. ----------Ashland
Ludden, H. D.-------Mineral Point
Ludden, R. H. ----------Vlroqua
Lueck, G. W.----------La Crosse
Lynch, G. V.----------Oshkosh
Lynch, H. M.----------West Bend

MacCornack, R. L.------Whitehall
MacGregor, J. W.---------Portage
MacInnis, F. E.---------Milwaukee
McCabe, J. M.---------Sun Prairie
McCann, Edith ---------Milwaukee
McCarey, A. J.----------Green Bay
McCormick, G. L.-------Marshfield
McCormick, S. A. ---------Madison
McDonald, R. E.---------Milwaukee
McDonough, K. B.---------Madison
McGarty, M. A.----------La Crosse
McGary, Lester ----------Madison
McGonigle, B. E.---------Ableman
McGrath, E. F.----------Appleton
McIntosh, R. L.----------Madison
McKillip, W. J.---------Milwaukee
McLaughlin, H. J.----Bloomington
McMahon, A. E.----Glenwood City
McMahon, H. O. ---------Milwaukee
McNamara, L. V.---------Montello
McNevins, E. S.---------Green Bay
Maas, W. C.----------Rio
Macaulay, E. M.----------Wausau
Mackoy, F. W.---------Milwaukee
Madison, F. W.---------Milwaukee
Malloy, T. E.---------Random Lake
Maloof, G. J.----------Madison
Mannion, J. E.----------Marshfield
Mannis, Harry--Black River Falls
Marek, F. B.----------Racine
Marquardt, C. R.-------Milwaukee
Martin, H. G.----------Milwaukee
Marsden, W. H.----------Madison
Marsh, H. E.----------Madison
Mason, E. W.----------Milwaukee
Mastalir, L. O.---------Burlington
Masten, M. G.----------Madison
Mauel, N. M.----------Cashton
Mauermann, J. F.----------Monroe
May, J. V.----------Marinette
Mayfield, A. L.----------Kenosha
Meanwell, W. E.----------Madison
Meany, S. G.----------East Troy
Meek, W. J.----------Madison
Meier, W. G., Jr.-------Sheboygan
Meyer, O. O.----------Madison
Middleton, W. S.----------Madison
Miller, E. W.----------Milwaukee
Miller, H. C. ----------Racine
Miller, H. L.----------Milwaukee
Miller, W. S.----------Madison
Mills, R. G.----------Fond du Lac
Minahan, J. J. ----------Chilton
Minahan, P. R.---------Green Bay
Mitchell, E. J.----------Brodhead
Mollinger, S. M.---------Milwaukee
Monsted, J. W., Jr.----New London
Montgomery, R. C.---------Madison
Montgomery, R. P. -----Milwaukee
Moon, J. F.----------Baraboo
Moore, L. A.----------Monroe
Morneau, L. F.---------Bear Creek
Morrison, W. W.---------Edgerton
Morton, H. H.----------Dodgeville
Morton, S. A. ----------Milwaukee
Moss, J. G. ----------Westfield
Mowry, W. A. ----------Madison
Mudroch, J. A.----------Columbus
Mueller, W. E.----------Green Bay

Munn, W. A.----------Janesville
Murphy, F. D.----------Milwaukee
Murphy, J. A. ----------Milwaukee

Nadeau, A. T. ----------Marinette
Nadeau, E. G.----------Green Bay
Nammacher, T. H.----Oconomowoc
Nee, Frank----------Spring Green
Neldhold, C. D.----------Appleton
Neilson, G. W.----------Milwaukee
Nelson, A. N.----------Clear Lake
Nesbit, M. E. ----------Madison
Nesbit, W. M.----------Madison
Neupert, C. N.----------Madison
Nickels, A. C.----------Watertown
Nixon, H. G. B.----------Hartland
Noble, J. B.----------Waukesha
Noer, R. J.----------Madison
Noyes, G. B.----------Centuria
Nuzum, T. O.----------Janesville
Nuzum, T. W.----------Janesville
Nystrum, L. E.----------Medford

O'Hora, C. M.---------Beaver Dam
O'Leary, T. J. ----------Superior
Ohlsen, M. P. ---------Monticello
Ohswaldt, H. F.------Oconto Falls
Olmsted, A. O.----------Green Bay
Olson, A. L.----------Stoughton
Olson, H. J. ----------Milwaukee
Orchard, H. J.----------Superior
Overgard, A. W.----------Stanley
Owen, J. D. ----------Milwaukee

Pallasch, F. J.----------Milwaukee
Parke, George----------Viola
Parker, A. S. ----------Clinton
Partridge, O. F. ----------Mattoon
Patek, A. J.----------Milwaukee
Paul, L. W.----------Madison
Pawsat, E. H.---------Fond du Lac
Pearson, C. R.----------Madison
Pease, W. A.----------Rio
Pegram, J. W.----------Milwaukee
Pember, A. H.----------Janesville
Pessin, S. B.----------Madison
Peters, H. A.----------Oconomowoc
Peterson, C. F. ------Independence
Peterson, L. W.---------Sun Prairie
Peterson, L. W. ----------Shawano
Peterson, R. O.----------Racine
Pfefferkorn, E. B.---------Oshkosh
Pfeifer, E. C.----------Racine
Pfeifer, F. J.----------New London
Pfeil, R. C. ----------Milwaukee
Pleyte, A. A.----------Milwaukee
Pohle, E. A.----------Madison
Pollack, S. K.----------Wauwatosa
Pomainville, F. X.-----Wis. Rapids
Pomainville, L. C.-----Wis. Rapids
Pope, F. W.----------Racine
Poser, E. M.----------Columbus
Potter, R. P.----------Marshfield
Powers, H. W.----------Milwaukee
Pratt, G. N.----------Menasha
Prentice, J. W. ----------Ashland
Puestow, K. L.----------Madison
Purcell, H. E.----------Madison

Quigley, L. D.----------Green Bay
Quisling, A. A. ----------Madison
Quisling, G. D. ----------Madison
Quisling, R. A. ----------Madison
Quisling, Sverre ----------Madison

Ragan, W. F. ----------Milwaukee
Raine, Forrester -------Milwaukee
Randall, M. W.----------Blue River

Raube, H. A.----------Beloit
Ravn, E. O.----------Merrill
Rawlins, J. A.----------Portage
Raymond, R. G.-------Brownsville
Rector, A. E.----------Appleton
Reese, William---------Dodgeville
Regan, J. R.-----Veterans' Admin.
Rehorst, J. J.---------Fond du Lac
Reineking, W. C. ---------Madison
Reinhardt, J. P.-----Fountain City
Remer, W. H.----------Chaseburg
Reznichek, C. G.----------Madison
Richards, C. A.---------Rhinelander
Ridley, S. R.---------Mineral Point
Rikkers, D. F.----------Milwaukee
Ringo, H. F.----------Montreal
Ripley, H. M. ----------Kenosha
Ritchie, G. A.----------Appleton
Ritchie, Gorton ----------Madison
Robb, J. J.----------Green Bay
Roberts, R. R.---------Beaver Dam
Rogers, A. W.---------Oconomowoc
Rogers, R. B.----------Neenah
Romberg, H. A.----------Oshkosh
Rosenberger, A. I.------Milwaukee
Ross, M. E.----------Brodhead
Ruffolo, A. F.----------Kenosha
Russell, F. H.----------West Allis
Ryan, W. A.----------Milwaukee

Salan, Sam ----------Waupaca
Sargeant, H. W.-------Wauwatosa
Sargent, J. C.----------Milwaukee
Schacht, E. W.----------Racine
Schacht, R. J.----------Racine
Schaefer, A. A.----------Milwaukee
Schaefer, C. O.----------Racine
Schindler, J. A.----------Monroe
Schlaepfer, Karl -------Milwaukee
Schlomovitz, B. H.-----Milwaukee
Schlomovitz, E. H.------Milwaukee
Schlomovitz, H. H.---------Barron
Schlossmann, Bernard --Milwaukee
Schmallenberg, H. C.--New London
Schmeling, A. F.---------Columbus
Schmidt, E. R.----------Madison
Schmidt, H. G. ----------Milwaukee
Schneider, C. S.---------Milwaukee
Schneiders, E. F.----------Madison
Schoenbeck, R. F.-------Stoughton
Scholter, E. A. W.------Milwaukee
Scholz, H. F.----------Thiensville
Schowalter, R. P.------Milwaukee
Schroeder, H. F.---------Marinette
Schubert, C. K.----------Madison
Schuldt, C. M.----------Platteville
Schultz, Isadore--------Mazomanie
Schulz, G. J. ---------Union Grove
Schulz, Irwin ----------Milwaukee
Schumm, H. C.----------Milwaukee
Schutte, A. G.----------Milwaukee
Schwartz, Rollin---Chippewa Falls
Schwittay, Addie M. ------Madison
Scollard, W. J.----------Milwaukee
Scullard, Garner--------Eau Claire
Seaman, G. E.----------Winnebago
Seeger, S. J.----------Milwaukee
Senn, George----------Green Bay
Sevringhaus, E. L. --------Madison
Seward, L. J.----------Berlin
Settle, R. O.----------Waupun
Sexton, W. G. ----------Marshfield
Shapiro, Harry----------Adams
Sharpe, H. A.----------Verona
Sharpe, H. R.---------Fond du Lac
Shaw, B. W.----------Waunakee
Shearer, H. A.----------Beloit
Shimek, A. J.----------Manitowoc

Shulak, Irving----------Madison
Shutkin, Michael -------Milwaukee
Silbar, S. J.----------Milwaukee
Simenson, R. S.----------Valders
Simenstad, L. O.----------Osceola
Simon, L. J.----------Fond du Lac
Sincock, H. A.----------Superior
Sisk, I. R.----------Madison
Sisk, J. N.----------Madison
Skemp, A. A.----------La Crosse
Sleyster, Rock --------Wauwatosa
Smiles, C. J.----------Ashland
Smith, J. W. ----------Milwaukee
Smith, J. F.----------Wausau
Smith, L. D. ----------Milwaukee
Smith, L. M.----------Oshkosh
Smith, S. M. B.----------Wausau
Snodgrass, T. J.--------Janesville
Sokow, Theodore ---------Kenosha
Soles, F. A.----------Platteville
Spooner, A. D.---------Milwaukee
Spiegeiberg, E. H.-------Boscobel
Sprague, L. V.----------Madison
Sproule, R. P.----------Milwaukee
Squier, T. L.----------Miiwaukee
Stamm, L. P.----------Milwaukee
Stang, H. M.----------Eau Claire
Stebbins, G. G.----------Madison
Stebbins, W. W. ----------Madison
Stein, J. F.----------Oshkosh
Stewart, W. C. ----------Kenosha
Stiehm, R. H.----------Madison
Stiennon, O. A.---------Green Bay
Stockinger, R. E.-------Miiwaukee
Stoddard, C. H. --------Miiwaukee
Stovall, W. D. ----------Madison
Stratton, F. A.---------Milwaukee
Sullivan, A. G.----------Madison
Sullivan, E. S. ----------Madison
Sullivan, W. E. ----------Madison
Sumner, W. C.----------Edgerton
Supernaw, J. S.----------Madison
Swartz, K. A. ----------Waupun

Tasche, L. W.----------Sheboygan
Tayior, A. C. ----------Washburn
Tayior, F. B. ----------Madison
Taylor, J. Gurney ------Milwaukee
Taylor, W. A. ----------Portage
Tegtmeyer, G. F.-------Milwaukee
Temkin, M. M.--------Beaver Dam
Tenney, H. K. ----------Madison
Terlinden, J. H.----------Bonduel
Tessier, A. F.----------Miiwaukee
Thayer, F. A.----------Beloit
Thill, G. E. ----------Milwaukee
Thomas, N. G.----------Madison
Thompson, I. F.----------Racine
Thompson, R. D. ---------Statesan
Thornton, Madeline J. ----Madison
Thurston, E. W.---------La Crosse
Tierney, E. F. ----------Portage
Tippet, W. P.----------Green Bay
Tolan, T. L.----------Miiwaukee
Tormey, A. R.----------Madison
Tormey, T. W.----------Madison
Townsend, E. H.--------La Crosse
Treadwell, G. F.--------Friendship
Troup, R. L.----------Green Bay
Trowbridge, C. H.---------Viroqua
Trowbridge, W. M.--------Viroqua
Troxel, J. C. ----------Appleton
Tufts, Millard----------Milwaukee
Tupper, E. E.----------Eau Claire
Twohig, D. J.--------Fond du Lac

Ulrich, C. F. ----------Kenosha
Usow, J. M.----------Winnebago

Vander Kamp, Harry -----Baraboo
Van Hecke, D. S.----------Phillips
VanKirk, F. W.----------Janesville
Van Riper, H. E.----------Madison
Venning, J. R.---------Ft. Atkinson
Vingom, C. O. ----------Madison
Virgin, H. W. ----------Madison
von Neupert, Carl---Stevens Point

Waffle, R. L.----------Fond du Lac
Wahl, C. M.----------Spring Green
Walker, H. M.----------Dodgeville
Walters, D. N.-------Fond du Lac
Walton, W. B.----------Milwaukee
Warfield, L. M.---------Milwaukee
Washburn, R. G.-------Miiwaukee
Washburne, A. C.---------Madison
Waters, Don----Wisconsin Rapids
Watson, E. L.----------Columbus
Wear, J B.----------Madison
Webb, H. E.----------Milwaukee
Weber, C. J.----------Sheboygan
Wegmann, N. J.---------Milwaukee
Wehle, W. J.----------West Bend
Weiland, H. P.----------Madison
Welkc, E. G.----------Madison
Wendt, F. A.-------Johnson Creek
Wenstrand, D. E. W.---Milwaukee
Werner, H. C.---------Fond du Lac
Werra, M. J. ----------Waukesha
Werreil, W. A.----------Madison
Weston, F. L.----------Madison
Wetzler, S. H.----------Miiwaukee
Wheeler, W. P.----------Oshkosh
Wheeler, R. M. ----------Madison
White, A. S.----------Rice Lake
White, C. L.---------Mineral Point
Wieder, L. M.----------Miiwaukee
Wier, J. S.----------Fond du Lac
Wiesender, A. J.----------Berlin
Wiley, F. S.----------Fond du Lac
Wilker, W. F.----------Iola
Wilkinson, D. C. -----Oconomowoc
Wilkinson, J. D.------Oconomowoc
Wiikinson, M. R.-----Oconomowoc
Willett, Thomas--------West Allis
Williams, D. L.----------Madison
Wiison, O. M.----------Wausau
Wilson, R. F.----------Beloit
Windesheim, Gustave-----Kenosha
Wing, W. S.----------Oconomowoc
Winter, A. E. ----------Tomah
Wirka, H. W. ----------Madison
Wisiol, Erich-------Stevens Point
Witcpalek, W. W.---------Algoma
Witte, D. H. ----------Miiwaukee
Wochos, F. J.----------Kewaunee
Wollersheim, P. J.-Forest Junction
Wood, Cordeile A.------Waukesha

Yates, J. L.----------Miiwaukee
Yockey, J. C.---------Fond du Lac
Younker, F. T.----------Galesviile
Young, A. F. ----------Wauwatosa
Young, M. L. ----------Ashland

Zivnuska. J. F.---------Miiwaukee
Zwickey, W. H.----------Superior

Interstate Assembly Meets at St. Paul Oct. 12-16

THE twenty-first International Assembly of the Inter-State Postgraduate Medical Association of North America, under the presidency of Dr. David Riesman of Philadelphia, Pennsylvania, will be held in the public auditorium of St. Paul, Minnesota, October 12, 13, 14, 15 and 16 with pre-assembly clinics on Saturday, October 10, and post-assembly clinics Saturday, October 17, in the hospitals of St. Paul.

The aim of the program committee with Dr. George Crile, as chairman, is to provide for the medical profession of North America an intensive postgraduate course covering the various branches of medical science. The program has been carefully arranged to meet the demands of the general practitioner, as well as the specialist. Extreme care has been given in the selections of the contributors and the subjects of their contributions.

In cooperation with the Minnesota State Medical Association, the Ramsey County Medical Society will be host to the Assembly and has arranged an excellent list of committees who will function throughout the Assembly.

A most hearty invitation is extended to all members of the profession who are in good

standing in their State or Provincial Societies to be present and enjoy the hospitality of the medical profession of St. Paul. A registration fee of $5.00 will admit each member of the medical profession in good standing to all the scientific and clinical sessions.

A list of the distinguished teachers and clinicians who will take part will be found in programs mailed physicians throughout Wisconsin. Special railroad rates will be in effect. For further information write Dr. W. B. Peck, Managing-Director, Freeport, Illinois.

Revision of Health Districts Announced by the State Board of Health

THROUGH funds made available to Wisconsin by the Social Security Act, the State Board of Health has allocated a portion of the money to intensify the work of the district health officers. The State is now divided into nine public health districts. Listed below are the names and addresses of the district health officers, together with the counties included in each district.

Health District Number	*Name of Officer*	*Address*	*Counties in District*
1	G. W. Henika, M. D.	15 W. Main St., Madison	Columbia
			Crawford
			Dane
			Grant
			Green
			Iowa
			Lafayette
			Richland
			Sauk
2	G. E. Hoyt, M. D.	209 W. Walworth St., Elkhorn	Jefferson
			Kenosha
			Milwaukee
			Racine
			Rock
			Walworth
			Waukesha
3	V. A. Gudex, M. D.	Court House, Fond du Lac	Calumet
			Dodge
			Fond du Lac
			Manitowoc
			Ozaukee
			Sheboygan
			Washington
			Winnebago
4	E. H. Jorris, M. D.	Post Office Bldg., Mauston	Adams
			Green Lake
			Juneau
			La Crosse
			Marquette
			Monroe
			Vernon
			Waushara
5	L. M. Morse, M. D.	First Nat. Bank Bldg., Neillsville	Buffalo
			Clark
			Jackson
			Pepin
			Portage
			Trempealeau
			Wood

Health District Number	Name of Officer	Address	Counties in District
6	Allan Filek, M. D.	302 Pine St., Green Bay	Brown
			Door
			Kewaunee
			Marinette
			Oconto
			Outagamie
			Shawano
			Waupaca
7	F. P. Daly, M. D.	Rutledge Charities Bldg., Chippewa Falls	Barron
			Chippewa
			Dunn
			Eau Claire
			Pierce
			Polk
			Rusk
			St. Croix
8	R. L. Frisbie, M. D.	City Hall, Rhinelander	Florence
			Forest
			Langlade
			Lincoln
			Oneida
			Price
			Taylor
			Vilas
9	J. W. Lowe, M. D.	City Hall, Ashland	Ashland
			Bayfield
			Burnett
			Douglas
			Iron
			Sawyer
			Washburn

The Journal Book Shelf

BOOKS RECEIVED FOR REVIEW

Principles of Chemistry. By Joseph H. Roe, Ph.D., professor of biochemistry, School of Medicine, George Washington University. Fourth edition. C. V. Mosby Company, 1936. Price $2.75.

Chemical Procedures for Clinical Laboratories. By Marjorie R. Mattice, assistant professor of clinical pathology, New York Post Graduate School of Columbia University, New York. Lea & Febiger, Philadelphia, 1936.

Surgical Clinics of North America. Volume 16, Number 3. New York Number—June 1936. W. B. Saunders Company, Philadelphia, 1936. Paper $12.00; Cloth $16.00 net.

Principles of Biochemistry. By Albert P. Mathews, Andrew Carnegie professor of biochemistry, University of Cincinnati, Cincinnati, Ohio. William Wood & Company, Baltimore, 1936. Price $4.50.

A Textbook of Neuro-Anatomy. By Albert Kuntz, M.D., professor of micro-anatomy in St. Louis University School of Medicine, St. Louis. Second edition, thoroughly revised. Lea & Febiger, Philadelphia, 1936. Price $6.00.

Fundamentals of Human Physiology. By the late J. J. R. Macleod, late regius professor of physiology in the University of Aberdeen, Scotland; and R. J. Seymour, M.D., professor of physiology, Ohio State University, Columbus, Ohio. Fourth edition. C. V. Mosby Company, 1936. Price $2.50.

Bulletin of the Neurological Institute of New York. Elsberg anniversary number, August 1936. Volume V. Waverly Press, Inc., Baltimore, Md.

The Technique of Contraception. By E. M. Matsner, M.D., medical director, American Birth Control League; R. L. Dickinson, M.D., chairman, executive committee, National Committee on Maternal Health; Foster Kennedy, M.D., professor of neurology, Cornell University Medical College. Third edition. Price fifty cents.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

Corrections in the United States Pharmacopoeia, Eleventh Revision. By authority of the Committee of Revision. Mack Printing Co., Easton, Pa.

Corrections in the U.S.P. XI, to be made in copies numbers 100,001 to 150,000, may be obtained by purchasers of this book from the publishers of the Pharmacopoeia, the Mack Printing Company, Easton, Pa., by enclosing a 3-cent stamp.

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PRINCIPAL OFFICES AND LABORATORIES, INDIANAPOLIS, INDIANA, U. S. A.

Recreational Therapy for the Mentally Ill. By John Eisele Davis, senior physical director, Veterans Administration Facility, Perry Point, Maryland, in collaboration with William Rush Dunton, Jr., M.D., instructor in psychiatry, The Johns Hopkins University. A. S. Barnes and Company, New York, 1936. Price $3.00.

Resocializing physical therapy in theory and practice has been outlined by Mr. Davis and Dr. Dunton, and constructs the most normal setting for those elements in the mentally ill which need readjustment and treatment. Recreational therapy for the mentally ill may be defined as any free, voluntary and expressive activity which permits unrestricted expression of the play spirit and of the pleasurable attitude of an active or passive character and which permits readjustment and rehabilitation by wholesome emotional release.

The—what to do and how to do it—problem in neurotic or psychotic patients is concerned with (a) readjustment; (b) re-education; (c) resocialization. Psychogenic, mental and organic types of disintegrated personalities of moody, unsocial, fixed or obsessive reactions, of classifiable psychotic pattern disturbance need a better understanding of recreational therapy.

With 631 hospitals and other institutions (445,867 patient population) caring for the mentally ill and the mentally deficient in the U. S. A., medical procedures of supervising economic, social, recreational activities are finally coming into the forefront replacing the herding of the "chronics" in cheerless, drab, institutions with nothing to do. The authors classify the mentally sick in types and disease entities. They outline formal and informal exercise schedules fitting to the interest and temperament of the mental attitude of the patient. The wide scope of information describing all phases of recreational therapy for the mentally ill is unique. The book is a guide and informer for all those engaged in the work of practical psychiatry and psychology. This book can be highly recommended; it is the best outline for the necessary therapy in psychiatric hospitals and institutions. H.H.R.

Heart Disease and Tuberculosis. By S. Adolphus Knopf, M.D., New York University and Paris. The Livingston Press, Livingston, New York, 1936. Price $1.25.

This small manual contains a review and the beliefs of Doctor Knopf concerning the present status of the two disease problems mentioned in the title. They are discussed (especially tuberculosis) from many diverse medical and social angles. The information is for the most part conventional and rather modern.

The unusual contents are the descriptions of the theory, technique, and application of diaphragmatic breathing in the prevention and cure of the two types of disease. This yogistic procedure is said to be a benefit, but proof is wanting. He includes more or less encouraging notes from many well-known physicians who also are indefinite about its application. Although the diaphragm is not near the most common site of tuberculosis, one might think that any positive breathing procedure applied while the disease was in any stage of pathological activity would be contraindicated. W.H.O.

The 1935 Year Book of General Surgery. Edited by Evarts B. Graham, A.B., M.D., professor of surgery, Washington University School of Medicine; surgeon-in-chief of the Barnes Hospital and of the Children's Hospital, St. Louis. The Year Book Publishers, 304 South Dearborn St., Chicago. Price $3.00 postpaid.

This volume is much like the ones of preceding years in that it contains a short description of the contributions made in general surgery during the past year.

The editor has inserted remarks regarding the value of some of these recent contributions which adds a great deal to the value of the book, J. W. G.

Interpretation of Laboratory Findings. By Raymond H. Goodale, M. D., Pathologist, City Hospital, Worcester, Mass. Price $2.25. F. A. Davis Co., Philadelphia.

This book is divided into four sections. The first deals with normal values and lists the causes of deviations; the second consists of an alphabetical list of diseases with the associated abnormal laboratory findings; part III is entitled "The Physiologic Pathology of Body Fluids and Excreta"; part IV deals with the collection and preparation of materials for laboratory examination.

The interpretation of laboratory findings is an immense field to attempt to cover in 162 pages. Such brevity results in a presentation limited to a mere listing of the diseases without adequate discussion. For the practitioner who needs only to refresh his memory, such brevity may be advantageous; for the student, it is a serious drawback. For example, albuminuria is limited to seven lines; albuminuria in disease to three; leucocytosis is passed over in six lines, achlorhydria in ten. Admittedly, very few books confined to this field have appeared in recent years, and perhaps practitioners hesitate to read the laboratory manuals because of the amount of space devoted to the technic of the various tests. However, most of them provide a more rational approach to the interpretation of laboratory findings than does this book. W. E. B.

Why Bring That Up? By J. F. Montague, M.D., medical director, New York Intestinal Sanitarium. The Home Health Library, New York.

This book is for the layman, if anyone. It is a strange mixture of whimsy, remarks concerning travel and seasickness, and gratuitous advice on a great many unrelated subjects. The author's own recommendations for treatment are listed in half a page. This antiemetic therapy sounds quite suitable for those who try to read the book. W.H.O.

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The Baby and Growing Child. By Louis Fischer, M. D., consulting physician to the Willard Parker Hospital, New York, New York. Funk and Wagnalls Co., New York, New York.

One is justified in assuming that one of the main functions of a book intended for young mothers is to give them not only some detailed information but also to give encouragement and help in what all too often looms up as a formidable and hazardous task. But the amount of repetition, contradiction, and inaccurate information contained in this book just about destroys the value of the good advice and leaves one somewhat uncertain as to just what the author really does mean. To mention but a few examples: The author says that radical changes in living are necessary during pregnancy and he then goes on to outline a very normal regimen; which seems to presuppose that non-pregnant women have rather bad habits of living. Shocks, fright and sudden excitement during pregnancy are said to cause psychic disturbances in the newborn but the next sentence says that maternal impressions have never been proven. The relation of cod liver oil, vitamin D, and rickets is rather sporadically discussed in three different places. It is difficult to understand why a discussion of jaundice should be included in a chapter on deficiency diseases and one hopes that the statement that scurvy is caused by lack of vitamin D is a typographical error. The Dick test is said to show the presence or absence of scarlet fever and the real use of the tuberculin test in finding preclinical cases seems to be misunderstood.

However, there is one very bright spot in the book and that is the chapter on dentition written by Dr. Robert M. Fischer. It would be difficult to find a more concise and yet ample discussion of the importance of good dental care in children than is given in these few pages. H. K. T.

The Harvey Lectures. Delivered under the auspices of The Harvey Society of New York, 1934–1935, under the patronage of the New York Academy of Medicine. The Williams & Wilkins Company, Baltimore.

The eight lectures on the medical sciences are delivered, as usual, by men who have been outstanding contributors in their special fields of research. Each presents the development of knowledge of the subject, with an analysis of the present status from his own viewpoint. Certain portions are highly technical but all contain clearly the clinical implications. To the physician who is not immediately abreast of the subjects, the advances are almost in the nature of an H. G. Wells fantasy.

Dr. Castle describes the relationships of the extrinsic and intrinsic factors in macrocytic anemias and suggests that diet may condition the function of the intestinal tract.

Dr. Rose suggests that there are eight (and perhaps more) instead of four indispensable aminoacids.

Dr. Sawyer describes the present epidemiology of yellow fever and believes that subclinical disease and several unusual vectors are responsible for its persistence.

Dr. Richards describes the filtration-reabsorption-secretion evidence obtained by recent use of the micro-technique in collection and analysis from various points in the amphibian nephron. He considers the frog and necturus kidneys comparable but the action on tubule urine different. There is some evidence of secretion in the tubule.

Dr. Dodds gives the formulae for the hormones and related substances and presents evidence against specificity of effect.

Dr. Anrep traces the return to the original belief that muscle contraction is associated with a decreased blood content, and suggests that both a change in pH and a specific (unknown) vasodilator substance are produced in contraction.

Dr. Blake describes the development of lobar pneumonia, the optimum time for administration of pneumothorax, and the mode and degree of its effectiveness.

Dr. Northrop believes that enzymes are proteins and he describes the properties of pepsin, trypsin and related substances. W. H. O.

Disability Evaluation. By Earl D. McBride, M.D., assistant professor in orthopedic surgery, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma. J. B. Lippincott Co., Philadelphia, 1936.

Dr. McBride has written a very comprehensive and valuable study of industrial injuries in respect to the functional loss in its relationship to incapacitating individuals for work. His purpose in this volume is to eliminate the guesswork in evaluating functional loss of a part.

The book is divided into thirty-one chapters. He discusses the various compensation laws of the states, United States and Canada in chapter one. In chapter two there is a discussion of the standardizing disability evaluation methods. In chapter three there is a comprehensive outline of examination and the clinical significance of findings of the disabled person. Chapters four to thirteen include the disability caused by the ankylosis of the various joints in all the possible positions. Chapters fourteen to twenty-three include the disabilities caused by fractures. Fractures of every bone and its various regions are considered. The disability of the industrial back is also included in this work. Nerve injuries, head injuries, injuries to the eye and ear, burns and hernia are included. The tables for evaluating the percentage of loss of function of the various joints on parts of the extremities are of extreme value.

The book should be a part of the library of every general surgeon and industrial surgeon. It is of extreme value to the orthopedist who is often required to give an estimate of disability. It is also of value to attorneys handling compensation cases. H.W.W.

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Parenteral Therapy. By Walter F. Dutton, M. D., and George B. Lake, M. D. Charles C. Thomas, publishers, Springfield, Ill.

This work should be an excellent reference book to all practitioners, valuable to students in all its portions, but particularly valuable to them in the first part. The first of the three sections is made up of careful descriptions of all types of parenteral medication. In full detail it describes intracutaneous and subcutaneous injections, moving on to all of the more complicated procedures such as intraperitoneal, intraspinal, intrapleural, etc. The second portion of the book contains an interesting therapeutic index in which practically all diseases in which parenteral therapy is indicated are listed, and under each are enumerated the various drugs which may be used in its treatment parenterally. The third portion lists several hundred drugs all of which have been enumerated in the previous part, indexing them alphabetically and describing each rather briefly as to composition, indication and contraindication for its use, along with brief descriptions of methods of administration and recommended doses. F. L. W.

Passive Vascular Exercises. By Louis G. Herrmann, M. D., assistant professor of surgery, College of Medicine of the University of Cincinnati and the Cincinnati General Hospital, J. B. Lippincott Co., Philadelphia.

A most timely volume is Dr. Herrmann's text of "Passive Vascular Exercises." Its organization is very interesting and bespeaks fundamental knowledge of the subject from an anatomical and physiological standpoint as well as from the clinical standpoint. From the latter standpoint the text is quite exhaustive and the bibliography extended. Not only does the author's particular contribution of the Pavaex receive its due consideration, but all other forms of treatment of peripheral vascular disease are lucidly discussed and evaluated.

Two rather extraordinary chapters arrested the reviewer's attention. The first is the very interesting chapter two—"Historical Development of Knowledge Concerning Physiologic Effects of Changes in Environmental Air Pressure Upon Peripheral Arterial Circulation." This is a really masterly discussion of the development of the field to which the author has made material contribution. Then chapter nine—"Routine For Study and Care of Patients with Obliterative Arterial Diseases of the Extremities as Practiced in the Out-Patient Dispensary, Cincinnati General Hospital, Vascular Disease Clinic" is worthy of emulation in every service devoting particular attention to this field.

By and large this volume is one of the most praiseworthy of recent contributions to medical literature, and only one small criticism should be voiced relative to its composition; namely, the lack of clear definition in certain of the photographs and cuts. This circumstance will in no sense detract from the utility of the text to the student and practitioner. W. S. M.

Medical Papers Dedicated to Henry Asbury Christian, Physician and Teacher. From his present and past associates and house officers at the Peter Bent Brigham Hospital, Boston, Mass. In honor of his sixtieth birthday, February 17, 1936. Waverly Press, Inc., Baltimore, Maryland.

The title of the book is in itself explanatory of its general content and the purpose of its publication. This collection of medical papers has been placed in one volume and presented to Dr. Christian by his associates in gratitude for his years of counsel and service. It pays a high tribute to one of the world's leading internists. In addition, however, to the eulogy contained in its introduction, the book abounds in articles of interest and worth. Aside from the sentimental aspects which will appeal to many of Dr. Christian's admirers, the reader will find much of medical interest. The collection consists of papers which serve to summarize many general and specific medical problems, and includes interesting case reports and much experimental work. This volume, therefore, should appeal to many for the twofold purpose which it fulfills. E. M. B.

The 1935 Year Book of Obstetrics and Gynecology. Edited by Joseph B. DeLee, M.D., and J. P. Greenhill, M.D. The Year Book Publishers, 304 South Dearborn St., Chicago, Ill. Price $2.50 postpaid.

This book of 659 pages reviews the important literature in obstetrics and gynecology published during the year of 1935. The abstracts are concise and inclusive. The comments of the editors on many of the subjects reviewed are valuable.

This volume should be included in the library of every physician practicing obstetrics and gynecology. M. J. T.

A Textbook of Pathology. By W. G. MacCallum, professor of pathology and bacteriology, The Johns Hopkins University, Baltimore. Sixth edition, entirely reset. W. B. Saunders Company, 1936. Cloth $10.00.

Previous editions of this textbook have been well received by students and the present edition should be no less acceptable to them. The popularity of the book depends not only upon the author's attempt to correlate cause and effect, injury and response, wherever possible, but also upon his easy, informal, lecture-style which makes it a "readable" book. The text is too well-known from its previous editions to need an extended review, especially as the general order and content remain with only those changes demanded by the recent progress in medical science. One may say, however, that the tendency of the author to emphasize a humoral and physiological pathology will necessitate supplementary instruction on the part of a teacher who would give a fundamental morphological and cytological basis to his students. The reverse is, of course, true with a textbook primarily of the pathological anatomy type. C. H. B.

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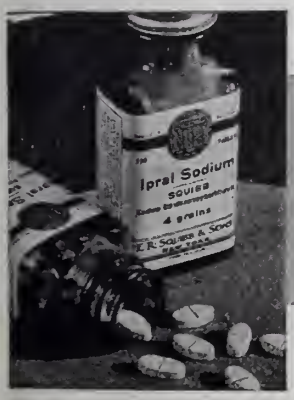

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A Diabetic Manual. By Edward L. Bortz, M. D., chief of medical service B, the Lankenau Hospital, Philadelphia. F. A. Davis Company, Philadelphia, 1936.

This volume of 222 pages is written in simple language from the point of view of the physician, but the majority of diabetic patients will find it too elaborate in its detail, too technical in the language and in organization for their use. It represents the conventional point of view about most of the features of diabetes. The book is written by five associates in addition to the chief author. This would suggest that it presents careful, special information. However, the section on dental problems is of very little value and certainly presents ideas which could hardly be defended. The section on diet would be difficult for anyone to use who did not have definite ideas about how to plan the diet for a given patient. It is difficult for the reviewer to see in just what field this book excels. E. L. S.

The International Medical Annual. A yearbook of treatment and practitioner's index. Fifty-fourth year. William Wood and Co., Baltimore. Price $6.00.

This British "Annual" is comparable to the American yearbooks of medicine. In a single volume, however, the newer contributions to the medical and surgical specialties are covered as seen through the eyes of thirty-six reviewers. This plan recommends itself to the general practitioner, for by reference to a single volume he is enabled to acquaint himself with the important advances made in the entire field of medicine in any year; and for the same reason the specialist, whose field of practice is more limited, can readily know of advances made in allied branches. The lessened tendency of the British to subdivide medicine into a large group of medical specialties is likewise suggested.

The introduction is most interesting for there attention is drawn to a few of the outstanding developments and changes which are taking place. This is followed by a "Dictionary of Practical Medicine" where diseases such as "agranulocytosis"; organs such as "lungs," and procedures such as "skin grafting" are alphabetically arranged with cross references. Finally there is a most comprehensive "General Index" which greatly increases the availability of the subject material. Should the reader desire further information than that given he will find numerous references to original articles immediately following each topic reviewed.

In addition to being carefully edited and well printed, the volume is profusely illustrated with over one hundred and fifty figures and plates both colored and uncolored.

In brief, this volume is the most comprehensive reference book to the minutes of the yearly proceedings of the field of medicine with which the reviewer has knowledge. K. L. P.

Theory and Practice of Psychiatry. By Dr. William S. Sadler. Published by C. V. Mosby Co, St. Louis. Price $10.

This volume of 1,200 pages fills a long felt need in medical texts. It is an extensive and scholarly production covering every phase of normal and abnormal mental activity. The book is divided into five parts.

Part I opens with a historical review of the beginnings of psychiatry, followed by neat critical outlines of all the well-known psychologies and then goes on to develop a general background for the later consideration of personality problems, the neuroses and the psychoses. It also includes chapters on classification and the examination.

Part II, containing 26 chapters, is devoted entirely to the study of personality and its problems, starting with the nursery through adolescence and adult life and finally family relationships.

Part III of over 300 pages develops in great detail the neuroses.

Less space is given in Part IV to the psychoses, while 19 chapters or over 200 pages is given to psycho-therapeutics. Space does not permit as detailed a description as the volume deserves. It is significant and noteworthy that most stress is laid on the personality and the functional disturbances, the problems which abound in all medical practice. While the average medical text leaves much to the imagination in regard to treatment of disorders, this book, to the contrary, has handled this feature in minute detail and in a wholesome practical fashion. As far as Dr. Sadler's own psychiatric leanings go, he can be said to steer a middle course, accepting those parts of the various psychologic theories and practices which he finds useful.

The book is highly commended to medical students and to the profession as a complete text of psychiatry. The simplicity of its language, its clear, concise, descriptive material, its wide range of interest, makes it a valuable reference for others who deal with human problems. M. G. M.

Lectures on Conditioned Reflexes. By Ivan P. Pavlov, M. D., director of the physiological laboratories, foreign member Royal Society, translated from the Russian by W. Forsley Gantt, M. D., coworker in Prof. Pavlov's laboratory, Institute of Experimental Medicine. Liveright Publishing Corporation, New York, 1936. Price $3.00.

Since this is a reprint of the "Lectures on Conditioned Reflexes" which was published in 1928 it is not necessary to review the subject matter in detail. The name of Pavlov has become almost a household word throughout the world and it is fitting that a reprint of this classical book should appear so soon after the author's death. Pavlov's use of conditioned reflexes has done more to elucidate the physiology of mental processes than any other modern work. A knowledge of his contributions is absolutely necessary for the understanding of all recent physiological and psychological studies. The book is to be recommended to the general as well as the scientific reader. W. J. M.

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Minor Surgery. By Frederick Christopher, M. D., associate professor of surgery at the Northwestern University Medical School, Chicago. Third edition, reset. W. B. Saunders Company, 1935. Cloth $10.00.

The third edition of this book is the natural sequence expected following the enthusiastic reception of the first and second editions. This volume has been brought up-to-date by revision of the previous chapters and in addition there are many new subjects presented for the first time.

The last chapter on "The Surgical Intern" contains a wealth of information on hospital procedures not found elsewhere.

This is a valuable book for anyone interested in the practice of medicine and surgery. K. E. L.

Recent Advances in Genito-Urinary Surgery. By Bailey and Matheson. P. Blakiston's Son and Company, Philadelphia, Pennsylvania.

The recent innovations as they affect the commoner conditions are stated and briefly discussed. This book may well be used as an outline as to what is recent in urology, but the practical application of this knowledge would have to be clarified by more detailed publications. The material is well organized and pleasingly presented without controversial discussions. The chapters on excretory urography and surgery of the sympathetic nervous system are particularly well done. It is a book every general practitioner would do well to own. J. B. W.

NEUTROPENIA

(Continued from page 811)

for colds with no ill effects. The reaction of this patient has a striking resemblance to that of a case reported by Peshkin & Miller[1] in which typical thrombocytopenic purpura followed even small doses of quinine, ergot, aspirin and castor oil, in certain individuals who were apparently allergic. Their points in diagnosis were: 1. Hemorrhage from mucous membrane. 2. Petechiae. 3. Prolonged bleeding time with normal or slightly retarded coagulation time. 4. Non-retractile clot and reduced platelet count. Our case fulfills all these requirements except 4, which, unfortunately, we did not investigate. The white counts in their report were never low.

The case is automatically classified as a neutropenia by the blood count, and the character of the attack was unquestionably acute and malignant. Certain factors suspected of causing neutropenia in some cases were present here: trauma (of childbirth), the pregnant state, and drugs, though the drugs used here are not those most commonly accused of causing the disorder. They were not used in large doses nor for a prolonged period of time. There was no sign of ulceration at any time. We did not examine the vagina or cervix as the lochia seemed normal except for the excessive flow, and we saw no indication for interference.

Hunter[2] in discussing the etiology of agranulocytosis and purpura, concludes that it is probably an allergic phenomenon conditioned by liver damage and occasioned by certain drugs. Our case appeared to be an allergic reaction to a drug, probably quinine, but we were not aware of any previous liver damage, other than that which may be present in a normal pregnancy.

The response to treatment was gratifying. Transfusion 420 cc. was given to compensate for the loss of blood and with the hope of stopping the hemorrhages, which it apparently did. Pentnucleotide injection was followed by a steady rise in white count and percentage of neutrophiles. Liver extract was given to counteract the anemia and also to raise the white count. Some observers had seen the leucocytic response in pernicious anemia and urged the use of liver in neutropenia of any kind. However, a case was reported recently of agranulocytosis developing in a pernicious anemia patient receiving adequate treatment.

Several writers on agranulocytosis state that improvement begins abruptly on the 4th to 6th day of the disease, or of treatment. Here improvement began immediately following treatment.

SUMMARY

A case is reported of postpartum malignant neutropenia with hemorrhages resembling thrombocytopenic purpura. Blood transfusion, pentnucleotide, and liver extract were apparently responsible for the rapid improvement and complete recovery of the patient.

REFERENCES

1. Peshkin, M. M., and Miller, J. A.: Quinine and ergot allergy and thrombocytopenic purpura. J. A. M. A. 102:1737 (May 26) 1934.
2. Hunter, F. T.: Drug or protein allergy as cause of agranulocytosis and certain types of purpura. New Eng. Jour. Med. 213:663 (Oct. 3) 1935.

We wish to express our thanks to Mr. Lawrence Johnson, salesman for Eli Lilly & Co., who spent his day off searching through the city of Rockford for pentnucleotide and delivered it to Beloit when it was needed.

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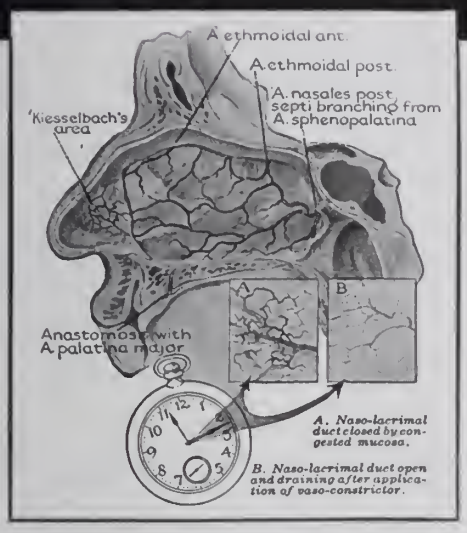

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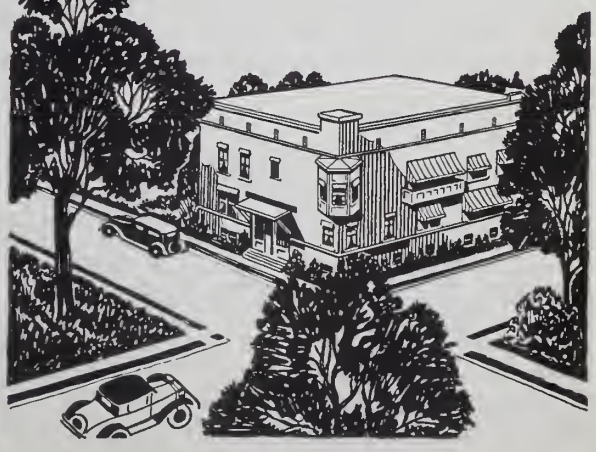

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But the defensive mechanisms of the body capable of preventing changes in reaction may be deranged in disease with consequent acidosis or alkalosis. Acidosis is associated with hyperpnea, diarrhea, dehydration, anoxemia, circulatory or renal insufficiency; alkalosis with excessive breathing, vomiting.

Treatment of acidosis is designed primarily to correct the underlying cause. In most types, fluids and fruit juices with Karo are forced every hour. In cases associated with ketosis (except where it is a disturbance in carbohydrate metabolism, as in diabetes mellitus) 20% dextrose is given intravenously at repeated intervals. In case of diabetes, insulin is given, by some authorities, simultaneously one unit for each gram of dextrose, until the condition is controlled.

CAUSES OF ACIDOSIS	
EXCESSIVE ACID FORMATION	
Acid	*Disturbance*
Aceto-acetic B-hydroxyhutyric	Starvation Cyclic vomiting Diabetes Ketogenic diet
Lactic	Asphyxia Intestinal intoxication Respiratory failure Shock Burns
DEFECTIVE ELIMINATION	
Metabolite	*Disease*
Phosphate	Nephritis
Carbonic acid	Emphysema Respiratory obstruction Myocardial failure Narcosis

CAUSES OF ALKALOSIS	
EXCESSIVE LOSS OF ACID	
CO_2	Hyperventilation Tetany Cerebral lesions (respiratory center) Hysteria Excessive crying
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EXCESSIVE INTAKE OF ALKALI	
$NaHCO_3$	in Pyelitis in Nephritis

From Kugelmass' "Clinical Nutrition in Infancy and Childhood" — (Lippincott)

Treatment of alkalosis depends upon the cause. The most common variety in children is that resulting from prolonged vomiting with loss of acid, salt and body water. No food is given by mouth except fluids with Karo, and saline intravenously. If alkalosis is the result of alkali administration in the presence of nephritis with poor kidney excretion of salts, large amounts of fluids with Karo will favor excess base elimination. Alkalosis from excess alkali administration is alleviated by forcing fluids with Karo.

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VITAMINS IN CANNED FOODS

V. VITAMIN G

● By 1926, it was apparent that the antineuritic vitamin B of earlier investigators was in reality a combination of several vitamins. In that year, Goldberger postulated the existence of a second vitamin associated with the so-called vitamin B "complex" which he designated as the P-P or pellagra-preventive factor. Evidence has been offered that this factor—subsequently named vitamin G—exerts a specific action in the cure and prevention of human pellagra and a similar condition in experimental animals (1).

Since Goldberger's pronouncement, considerable research has been devoted to resolution of the vitamin B complex and, what is equally important, to testing the specificity of vitamin G in the cure of human pellagra (2).

The findings in the laboratory and clinic have not, in some respects, been entirely in accord (3).

As reports of further investigations appeared in the literature, it became clear that the vitamin B complex had been aptly named. At one time claims were made for the existence of as many as eight factors in this complex (4).

While later work has reduced this number, we know today that what has been considered in the past as vitamin G is, in reality, a combination of several factors. A relation between experimental cataract and vitamin G has been described and, recently, another associated factor was postulated (5).

The significance of these individual factors in human nutrition has not as yet been established. However, regardless of this fact, students of nutrition are agreed that we must provide for the inclusion of so-called vitamin G—admittedly a complex—in the daily dietary. It is also obvious that until more is known about the individual components of the complex, we must continue to depend upon present day bioassay methods to determine the "vitamin G" potencies of foods.

In this connection, many canned foods have been found by comparative studies to retain their original vitamin G potencies as measured by methods now in common use (6).

Investigators in the U. S. Public Health Service have described their values in the control of human pellagra (7).

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(1) 1926. U.S. Pub. Health Report, *41*, 297.
(2) 1934. Am. J. Med. Sci., *187*, 512.
1935. J. Am. Med. Assoc., *104*, 1377.
(3) 1932. J. Am. Med. Assoc., *99*, 120.
(4) 1933. J. Nutrition, *6*, 559.
(5) 1934. J. Nutrition, *7*, 97.
1936. Science, *83*, 17.
(6) 1932. J. Nutrition, *5*, 307.
1932. Ind. Eng. Chem., *24*, 457.
(7) 1932. J. Am. Med. Assoc., *99*, 95.

This is the eighteenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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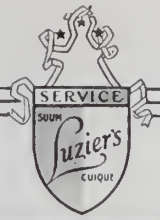

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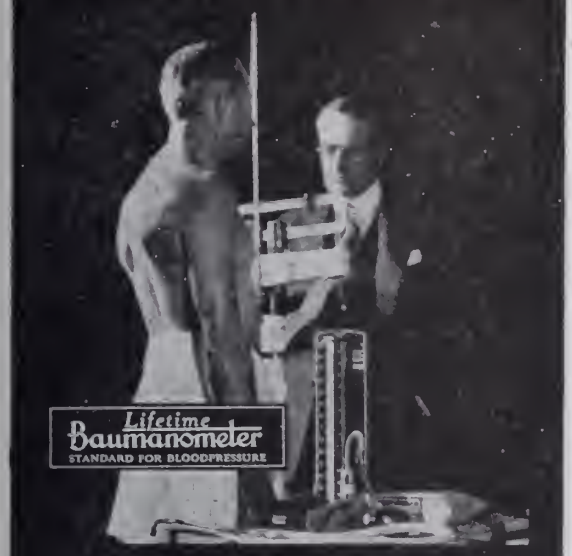

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★ *Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245*
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Arch. Otolaryngology, Mar. 1936, Vol. 23, No. 3, 306-309

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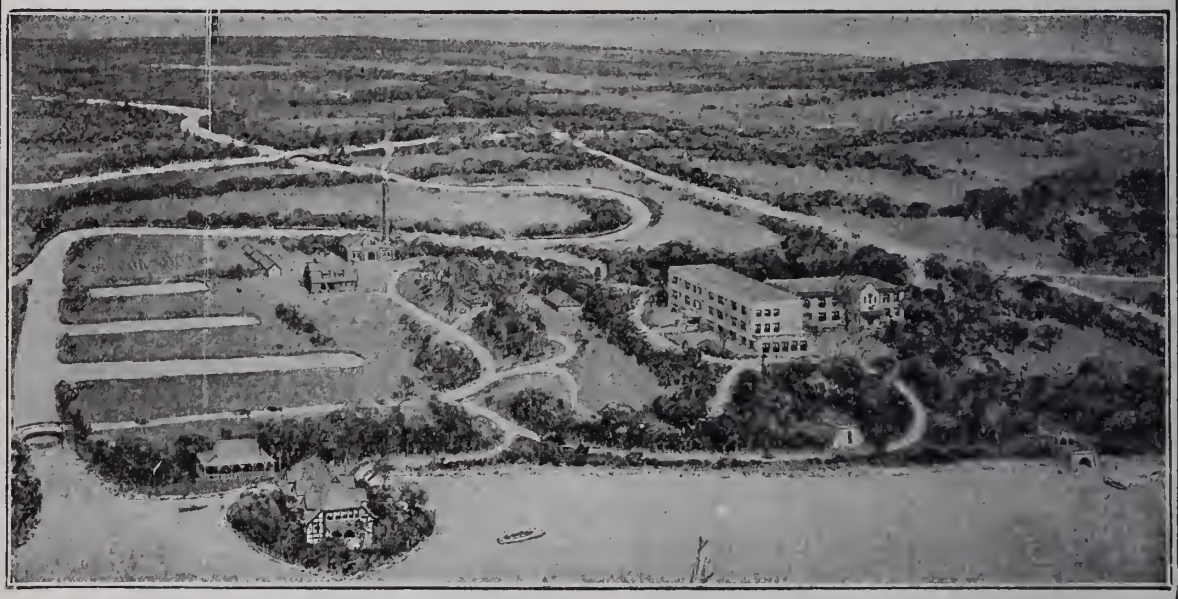

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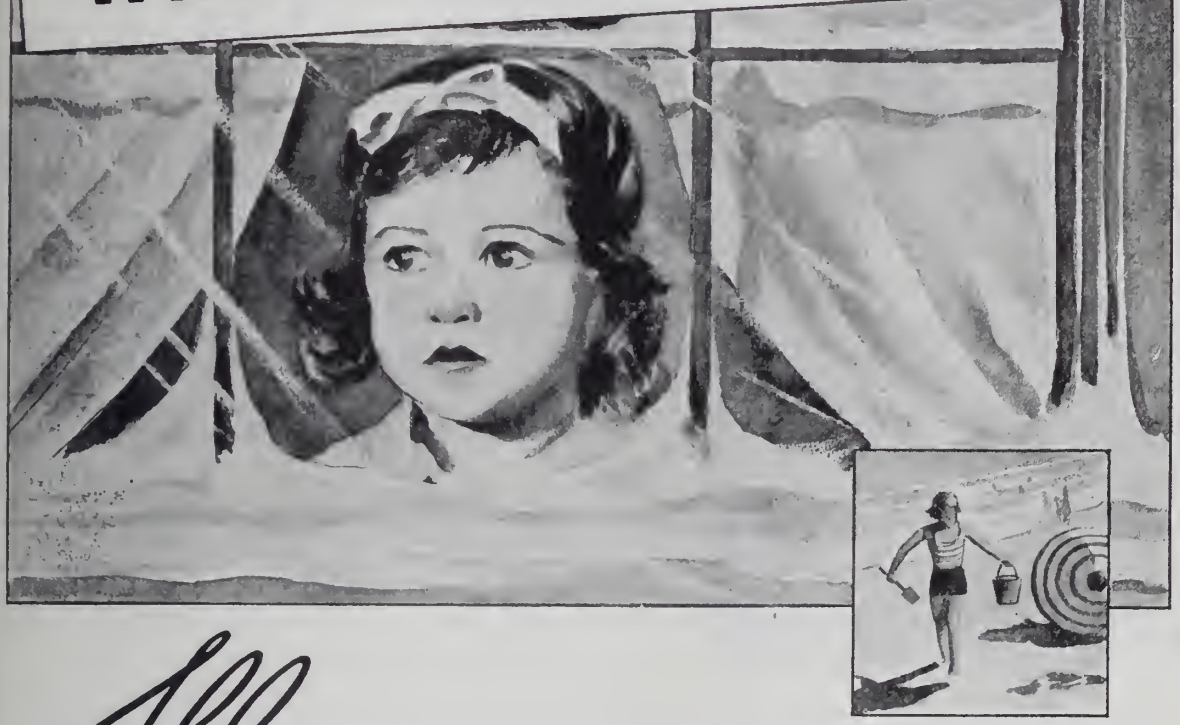

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Diagnosis and Treatment of Trichomonas Vaginalis*

By R. M. KURTEN, M. D.
Racine

IN PRESENTING this subject to you I do so with some hesitancy because my experience with the disease has not been entirely satisfactory to either my patients or myself. My first experience with it dates back to 1927 when, not having heard of trichomonas vaginalis, I made a tentative diagnosis of gonorrhea in a young female, an acquaintance, before examining the smear under the microscope. In fact, I well remember that, while staining it, I expounded at great length about venereal disease, excuses, denials, etc. The smear was negative but contained numerous yeast forms or Monilia. The subject being new to me, I undertook to investigate the literature and thereby learned considerably about both yeast and Trichomonas infestation of the vagina. Since that time I have treated many cases with varying degrees of success, as far as permanency of results was concerned.

During the last few years a somewhat extensive literature has accumulated and the disease entity has become rather generally accepted. Some of the most fundamental and authoritative studies have been made by one of our members, Dr. C. H. Davis[1] of Milwaukee. That Trichomonas vaginalis is not generally thought of by the general practitioner when seeing cases of vaginitis and vulvitis is my reason for presenting a review of the literature and my own experience with it. I shall not enter into the controversy regarding its being the etiological factor in the condition known as "Trichomonas vaginalis vaginitis" but merely indicate in my discussion that there is some doubt in certain quarters based on laboratory and chemical studies.

Donné in 1836 was the first to describe the organism associated with vaginitis. Kuenstler in 1883 reported cases from his clinic in France. Dock in 1891 was the first to report cases in the United States. After that cases were reported occasionally, but the disease was not considered of frequent occurrence until about 1928 and 1929 when Andrews in England reported finding 20 cases in a series of one hundred pregnant women. C. H. Davis, Furnis, Cary, Cornell, Plass, and others added their observations to the literature. The reports of various observers—Housman showing 40%, Hoehne 28%, Hegner 50%, Bland, et al., 13.2% of 243 white and 33.7% of 257 colored, of pregnant cases to be infested with Trichomonas—testify to its frequent occurrence. Stein and Cope reported on 76 cases, and later reported cultural studies from cases infested and not infested. All studies indicate the relative frequency of its occurrence in cases presenting themselves on a gynecological and obstetrical service.

Trichomonas is a parasitic flagellate characterized by the presence of four anterior free flagella which tend to adhere in one strand basally. Attached laterally is an undulating membrane in the margin of which is a posteriorly directed flagella. Posteriorly an axostyle is present. In fresh material it is actively motile, moving in circles with a characteristic vibrating motion. It is about 15 to 25 microns in length and 10 to 15 microns in width. Typically trichomonas are pear-shaped, rounded at the anterior, pointed at the posterior end. However, they may be amoebic, spheroidal, or fusiform in shape. They contain a large spindle-shaped nucleus and numerous granules, and in stained specimens bacteria are frequently seen. The material to be examined is diluted in normal saline and then examined in hanging drop or under a cover slip. Warm saline is preferable.

Trichomonas is found in human beings in the mouth, stools, urine, and vaginal tract.

* Presented before 94th Anniversary Meeting, State Medical Society of Wisconsin.

Some authors believe the trichomonad of the various locations to be the same organism, and believe this to account for the source of infestation or infection by auto-inocluation. Others, especially Bland[2] and his co-workers at Jefferson in Philadelphia, have differentiated and described the different groups and believe they are entirely different species with the exception that the Trichomonas vaginalis, the largest of the group, is identical with the buccal form. The intestinal form is said to have five anterior flagella. One interested in this technical detail will find it discussed in Bland's[2] article published in December, 1931.

The organism can be readily cultured. Lynch was the first to report success by culturing it in beef broth. Later Greenhill and Davis and others used Locke's or Ringer's solution with blood serum and some red cells. A *ph* between 5.11 and 8.5 is required. If subcultures are made every three days strains have been kept alive for months.

Regarding the pathogenicity of this protozoan the concensus of opinion is definitely in the affirmative. The work of Curtis[3] indicated that the bacterial flora in vaginitis contains an anaerobic Gram negative bacillus and a Gram positive diplococcus in addition to the Döderlein bacilli. These organisms are found in all the cultural studies of the flora in cases of Trichomonas vaginalis vaginitis. Trichomonas vaginalis is frequently found in cases which are asymptomatic, and the typical picture to be described is found in Monilia infections, also in cases showing neither Trichomonas nor Monilia. These facts have influenced Plass to attribute the causative factor to Monilia, and Hibbert[4] and Hesseltine[5] to consider a Trichomonad to be a saprophyte living on bacteria though responsible for the symptoms. Davis, Stein[6], Cornell[7] and others question their conclusions on the basis of inaccurate methods and deductions. At present these arguments are academic and not germane since we as practitioners called to treat a patient suffering from a severe vaginitis and vulvitis will be required to give treatment for relief, and until more authoritative work is forthcoming we will best serve our patients by considering the Trichomonad to be the offender and use the methods to be outlined. In resistant cases experimentation with some of the various methods described by the non-adherents may be fruitful.

Symptoms—Incidence

The symptomatology of this syndrome is rather classical, and it is rare that my first impression has been in error when microscopic studies have been concluded. If the case is a severe one the vulva and entroitus are bathed in a greenish yellow discharge the consistency of light cream; when the membranes are cleansed a high grade irritation frequently extending to maceration and erosion is noted. On inserting the speculum, one notes a copious vaginal discharge of the character described, of offensive odor and containing minute bubbles. When the secretion is wiped away small red points of granulation-like appearance can be seen on the vaginal and cervical mucous membrane. The entire vagina is sensitive to touch and manipulation. A small amount of the material, diluted with warm saline and studied by hanging drop or under a cover slip, soon makes the diagnosis clear, for hundreds of rapidly moving organisms are seen whipping their flagella back and forth. Stained smears show these organisms as fusiform bodies with flagella, bacteria, etc., as described. It is important to stain the material because, as will be shown later, Neisserian infection or Monilia may be associated.

The material studied by various authors indicates a high incidence in pregnant women, Bland[8], et al., reporting 23.6% in 500 consecutive cases reporting to the ante-natal clinic of Jefferson Medical College. Their deductions relative to puerperal morbidity in cases where Trichomonas was exhibited as compared with cases not so affected was 25.6% to 19.6%. Schma and Kaniher report 10.3% morbidity of cases harboring Trichomonas and 4.8% of these free; Cornell[7] reports 500 cases (white) with a morbidity incidence of 7.6%.

When Stein[6] and Cope examined 246 voided urine specimens from 889 prenatal patients at Michael Reese Dispensary, Trichomonas was found in the urine of 88 patients, an incidence of 10%. Of this series they selected

41 cases and added three private prenatal cases and 17 gynecological patients for complete studies for the presence of Trichomonas in the four commonly accepted locations: gums, urine, vagina, and blood. From this group Trichomonas was grown in artificial culture media from the vaginal secretions in 58 patients, from the urine in 5, stools in 3 gums in 4. Among 58 patients positive for Trichomonas yeast was found in 10.

Berkowitz[9] believes bladder infestation rarely if ever occurs, and he never found Trichomonas in catheterized specimens even when the vaginal secretion was teeming with them. Their presence in urine he believes to be due to contamination by vaginal secretion. He also believes that the organism lives in a quiescent state, either as to number or virulence, in numerous vaginas, and that some injury or alteration in the vaginal canal activates them, whereupon the clinical picture ensues. About five years ago I saw a patient with a severe colitis, the stool teeming with Trichomonas after an acute dietary gastroenteritis. He still harbored the organism, and this year after dietary and drinking debauch had a recurrence. The frequently associated cervical lesion may be a conditioning factor. In childhood, however, such an explanation would seem untenable and yet may be the explanation of the infrequency of occurrence in spite of the frequent contamination of the entroitus by the stool. An unknown trauma may be the inciting factor in the cases reported. Frankenthal and Kobak[10] reported infestation in four little girls, two of them sisters. I recently had two little girls of eight and nine years so affected.

Ryba and others have found Trichomonas in seminal fluid and it is believed that infection can occur in both directions and may be responsible for recurrence after apparent cures. The preputial smegma may harbor the organism. I have such a case under treatment at this time.

Bernstine[11] reports Trichomonas vaginitis associated with Neisserian infection and pregnancy. Most of the cases seen by him were referred with a diagnosis of gonorrhea. He finds patients with a mixed infection to be more irritated and resistant to treatment. In 1,250 deliveries the incidence of gonorrhea was 5.36%, Trichomonas 10.56%, and gonorrhea with Trichomonas 1.9%. Berkowitz and others mention the frequency of associated Trichomonas and gonorrhea in their cases.

Riff reporting from France believes that nine of ten cases of pruritus vulvae are due to Trichomonas, and in the tenth Oidium, etc., will be found. Transmittance he believes is from woman to woman, from bed linen, soap, towels, clothing, toilet seats, etc. Goodall, on the other hand, believes the source of infection is the bowel. The habit of women wiping forward is responsible. Davis' work seems to indicate a seasonal variation, April and September being the peak months. My own experience indicates a comparatively high incidence of occurrence in pregnant women and gynecologic cases in general. I have noted particularly its frequent occurrence in young engaged girls who have anticipated consecration of marriage by consummation. I have wondered about it, but no explanation to date seems adequate.

Much has been written about treatment, and each author seems to have his own conception of an adequate and effective regimen. I shall not attempt to enumerate all of them, but shall first outline what I have found to be the most effective and then mention briefly adjuncts or alternative measures sponsored by men interested in gynecology.

Treatment

Prophylaxis is important. The habit of wiping forward, dragging fecal matter over the moist vulvae, should be discontinued. All douche tips, etc., should be scrupulously clean and not interchanged. Clothing, towels, bed linen must be maintained according to accepted hygienic principles. Where recurrence is experienced the husband should be checked. Maids and nurse girls handling female children should be cautioned about cleanliness and the danger of infecting their charges.

When a case presents itself with the previously described picture and examination indicates a Trichomonas infection, with gonorrhea established as present or absent, also yeast, the patient should be thoroughly cleaned with green soap and rinsed with sterile water. The mucous membrane should be

dried by air from a syringe or mechanical pressure unit. If the irritation is marked I have found a boro-glycerine pack most soothing, the pack to be removed the next morning and a cyanide of mercury douche taken. The treatments should be given daily at first and the cleaning repeated. On the second day a marked improvement is usually noted. The vagina is cleansed, thoroughly dried with air, and 5% mercurochrome painted liberally and thoroughly over the cervix and vaginal wall, being sure to include the entire circumference. Then I use a dry pack; or frequently a powder blower distributing quinine sulphate as advocated by Sure and Bercey, or an alkaline powder containing stovarsol or a similar arsenical as advocated by Gellhorn[12], over the entire surface. The treatments are continued thus: Frequently I use 2% gentian violet, this especially if yeast be present. One can use picric acid in alcohol as advocated by Goodall[13] and Bland[2], or tincture or solution of merthiolate or metaphen. I furnish the patient, if the case is refractive, with a powder blower or solution spray especially adapted to vaginal work for use after cyanide of mercury douches. I have also used formaldehyde, one dram to two quarts of water. Lactic acid, vinegar, soda douches, sodium perborate, etc., are also advocated. It is important, I believe, to clear up cervical erosion or eversions by cautery or coagulation after the acute symptoms have subsided. Also be on the lookout for Skene's or periurethral gland infections. Cautery is of distinct value here as well.

Kleegman[14] recommends the use of Lassar's paste on tampons after painting the vagina with pyroligneous acid. I have not used it but several others recommend it.

Goodall recommends the use of 1% picric acid vaginal cones applied daily, supplemented with soap or lactic acid douches, and claims to cure his case in from eight to ten days. He uses the cones prophylactically after menses.

Riff[15] recommends silver nitrate 2% with bichloride douches followed by boro-glycerine tampons for twenty-one days.

Bernstine recommends cleansing of the vagina and endocervix with dry swabs, then applying one to 500 or one to 1000 aqueous metaphen and using douches of Lugol's solution, one dram to one quart of water, at home.

Gellhorn, acting on a suggestion of an associate, Dr. Cady, tried acetarsone (stovarsol) with considerable satisfaction. He recommended a formula containing stovarsol 12.5% in equal parts of kaolin and sodium bicarbonate, a practical prescription being acetarsone one dram (1 dr.), kaolin one and one-half drams (1½ dr.), sodium bicarbonate one and one-half drams (1½ dr.). He has devised a powder blower which, when inserted in the vaginal orifice, inflates the vaginal vault and distributes the material evenly over the surface. He treats his cases every two or three days and uses no douches. He has had no arsenical poisoning to date and cures after four to eight treatments.

Dr. Pratt of New Orleans in a personal communication said he had considerable success using neosalvarsan .6 gram in 10 cc. of water swabbed well over the cervix and vagina after cleaning and drying, repeating this every three to five days and teaching the patient to cleanse the vagina and follow with daily swabbing with Fowler's solution by means of large cotton swabs on stout sticks. I have used this with success where cooperation was satisfactory.

Sure and Bercey[16] of Milwaukee report seven cases treated with quinine sulphate insufflation with cures after three or four treatments. They base their treatment on the known effect of quinine or protozoan infections.

The principal factor is persistence in carrying on the treatment after menstrual periods for many months after cure is apparent. Having the patient use douches at home during menstruation is an important factor.

Hibbert's[4] work with a broth made from the streptococcus cultured from the vaginal secretion is interesting. He makes a filtrate broth and uses a stock solution, having found an autogenous one not to be superior. He first clears up cervical erosions, etc., with cautery, then uses tampon saturated with the filtrate inserted into the vagina, repeating

the treatment two or three times a week until cure is effected. I have not used it but propose to do so in the immediate future in several refractive cases.

In children the use of argyrol in solution or in wax sticks is useful, later using silver nitrate. Powder could be used, but my cases responded so readily to argyrol that no further treatment was used. In refractive cases it is possible that desquamation as produced by theelin might be effective in association with powder or antiseptic solutions.

In conclusion, I believe it best at present to consider Trichomonas vaginalis vaginitis to be due to Trichomonas (Donné) and to treat cases along the lines advocated. No hard and fast routine can be advised, but cleansing, plus some antiseptic liquid or powder, is advisable. Personal hygiene examination of the husband in refractive cases and prolonged surveillance after apparent cure is essential to maintain cases in that status.

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Discussion

Dr. N. Warren Bourne (Milwaukee). The treatment of Trichomonas vaginalis vaginitis has caused considerable discussion in the past few years. Dr. Kurten has given us a very complete resumé of the various methods used by the various authors. There is no one treatment, as he has shown, which is efficacious in all cases. Results in treatment are often obtained by relatively simple maneuvers. But often cases do not respond well and then the ingenuity of the therapist is taxed to the utmost. In average cases, we have had good results with Gellhorn's insufflation therapy using stovarsol powder. It is necessary to thoroughly cleanse and dry the vagina before the insufflation is done.

The etiology of Trichomonas vaginalis infections is obscure. Stovarsol by mouth is also used to eliminate the bowel as a focus of infection.

When there is but little response to the usual treatment, patients must be individualized and the therapy changed to suit the case. Recently I encountered a patient who apparently was very sensitive to the arsenical insufflation.

As Dr. Kurten has well emphasized, the hygiene of the patient is very important and the cooperation of the patient must be obtained to insure results. Cervical infections, and infected periurethral ducts must be eliminated before the patient is cured.

For several years, we have used with some satisfaction the application of methylene blue after thorough scrubbing of the vagina with green soap and sterile water until all discharge is removed and the mucous membrane is perfectly clean. This procedure is done on alternate days and on the interval day the patient uses a lactic acid douche.

In very resistant cases we have found the procedures recommended by C. J. Andrews* of value. He advises thorough scrubbing of the vagina with green soap and water, then rinsing with sterile water, then a 1-1000 bichloride of mercury douche and again rinsing with sterile water. The cervix and

* Virginia Medical Monthly, Jan. 1932.

vagina are then treated with 10% silver nitrate and finally one-half ounce of 25% glycerine and ichthyol is injected and a rosebud tampon is inserted to separate the surfaces and protect the clothing. The patient should take a one-half per cent lysol or cresol douche the next morning. This treatment is repeated in 48 hours, but the ichthyol and glycerine should be employed only every other time, an alkaline powder being insufflated in its stead on alternate occasions. This rather herculean therapy is used only in obstinate cases and has, when indicated, produced good results.

Recently 25% saline douches have been advocated but I have had no experience with them.

So far as infection in the male is concerned, I have examined many prostatic and vesicular smears, and have yet to see a Trichomonas infection in the male. However, I am still looking for such an infection and it is well to examine the sexual partner in resistant cases.

Trichomonas are found in catheterized urine specimens at times. As has been stated, their presence may be a contamination. A few irrigations of a mild antiseptic will usually rid the patient of such infestation.

Carbarsone suppositories at times also give great relief in Trichomonas vaginalis vaginitis.

Many other methods have been used such as Trikamon powder (Henry), quinine insufflation, sodium perborate douches followed by drying of the vagina and insufflation of stovarsol or quinine. Each method at times gives comforting results.

It is important, as has so well been emphasized, to watch the patient carefully and continue treatment until several negative smears are obtained and then be sure that there is no post-menstrual recurrence.

In closing, I am very glad to have had the opportunity of studying Dr. Kurten's timely thesis and wish to thank him for his presentation.

Dr. C. H. Davis (Milwaukee): Mr. Chairman, there are several points in the discussion which demand consideration. Sometime prior to Gellhorn's recommendation of the addition of stovarsol to kaolin, I published results showing that the addition of stovarsol powder to our culture media had no effect whatever on the Trichomonas growing in our culture tubes.

I would, therefore, ask the discussers who are enthusiastic about stovarsol as to what evidence they have that stovarsol will kill these flagellates. By introducing kaolin into the vagina and keeping the vagina thoroughly dry, it is possible without this addition to kill the Trichomonas because it must have a certain amount of moisture and must be kept in a practically anerobic condition.

Recently some of the drug houses have been claiming that their particular preparation was specific. For instance, the detail man for carbarsone suppositories came to my office recently and said the Council on Pharmacy and Chemistry of the American Medical Association had accepted carbarsone as a specific for Trichomonas.

When asked by what authority they were able to show it was more specific than any other mild antiseptic, he said it was done on the work of some observers at the University of California.

I wrote Dr. Lynch for information regarding the effectiveness of the carbarsone suppositories. His answer was that they were re-checking their cases and were less enthusiastic about the suppositories than they had been at first and that it was evident they had about the same number of successes with the carbarsone suppositories that they had with other forms of treatment.

In other words, it is the experience of every one of us who treats these cases that about seven out of ten with any type of persistent treatment can be cleared up in a reasonable period of time. The others will go ahead with recurrences and keep coming back over many months. I have had to treat some of them two years before I would finally get them to remain free.

I am thoroughly convinced at the present time that there is no specific for this parasite. Any one of the treatments advocated, if used frequently enough, will clear up the condition. Each of us goes through certain phases. At present, I am using the following treatment and find it as successful as any other and with it have cleared up some cases that had been persistent for a long period of time.

A year ago, I brought back from Germany some of the Devegan tablets, before they were introduced into this country by one of our American manufacturers. Those tablets have been found as useful as any other forms of treatment. They have certain advantages.

The vagina is dried and either painted with a five per cent solution of mercurochrome or merely dried and two or three of the tablets are put up in the vault of the vagina. A tampon is introduced and left until the following day. The patient then withdraws the tampon and takes a douche. According to the type of case, I may use a one to four thousand bichloride douche, a sodium bicarbonate douche or lactic acid douche. A word about the choice in a minute.

The next night the patient introduces a medicated lactic acid jelly into the vault of the vagina; the following morning she takes a douche; the second day she comes to the office and we repeat with the divigen. For a few weeks, we give three treatments a week at the office and she treats herself at home with the lactic acid medicated jelly, such as is commonly used for contraceptives, with very good results.

Early in the treatment I may use, for a few days, a sodium bicarbonate douche until the irritation is gone, then for a time use the bichloride douche. Then, after there is a healing of the vagina and I wish to get desquamation, which seems so important in the final cure of cases, I use the lactic acid. One se-

cures the benefit of the lactic in the jelly and that helps get the desquamation. If you can get the vagina to desquamate, you will find you usually get a cure in a reasonable period of time.

Unlike Dr. Bourne, I have demonstrated Trichomonas in the prostatic secretions after massaging the prostate and having the patient urinate. I have had a few husbands examined by urologists where the Trichomonas were found after the prostatic massage.

Dr. W. A. Coventry (Duluth, Minn.): We have a a lot of this infection in Minnesota, and I believe that is true everywhere else. I find, in talking to practitioners, the greatest trouble is the fact that they are unable to make a diagnosis. I talked to a man yesterday and he said he had not been able to find Trichomonodes. I think it is largely because of the method of procedure. If you see one, you will never miss another one in the field.

There is little trick in finding them and if you get acquainted with a Trichomone, you won't have any trouble.

As far as the treatment is concerned, I cannot add anything to what has been said. I suppose much could be added to what has been said about the treatment, so the last word is not yet said.

Dr. Kurten (Closing the discussion): In answer to Dr. Davis, I was acquainted with his experience with stovarsol and his culture media in checking the growth. I have really had some very good results in using stovarsol or similar arsenical, the neosalvarsan. I believe we can eliminate kaolin.

My experience with carbarsone suppositories has been very unsatisfactory. I think it is due to the fact that it is probably depended on too greatly. A sufficient cleansing is not done at home, and douches are notoriously difficult to give satisfactorily; at least most patients have that difficulty.

Depending on the effect of carbarsone where the vagina had not been cleansed and dried, I think has proven a failure. It may be that the arsenical does not have an effect on this suppository.

I am greatly appreciative of the discussion which has followed this presentation.

Pityriasis Rosea*

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PITYRIASIS rosea is a very common, benign skin disease of very characteristic clinical appearance which runs a very definite self-limited course.

In spite of its clear-cut diagnostic features it is more often overlooked than recognized by the average practitioner.

This disease is not important in itself from either the standpoint of etiology, subjective symptoms, prognosis or treatment, yet so often does it obtrude itself for consideration from the standpoint of differential diagnosis with other skin conditions of more serious and more portentous type, that it well merits a short discussion at this time of its salient features and clinical course.

In 1860, Gibert, a Frenchman, was the first to describe pityriasis rosea, as a disease entity, separate and apart from other dermatoses exhibiting lesions and eruption patterns which resemble it.

In 1862, Bazin, another Frenchman, confirmed Gibert's creation of this new clinical entity and still more sharply clarified its specific points of differentiation.

In 1880, Duhring described the first American cases.

The eruption and clinical course of a classical case, as described by Gibert, are very characteristic.

The course is usually acute, running through a period of six to eight weeks. Rarely, it may run a chronic course of several months. Recurrences are rare but they do occur. The disease, unless badly mistreated, is nearly always self-limited.

In the evolution of pityriasis rosea there appear to be three distinct phases:

1. The stage of primary eruption;
2. The stage of secondary eruption;
3. The stage of defervescence and involution.

1. The Primary Lesion — Herald Patch. Without premonitory symptoms, there appears on the trunk, or elsewhere, a reddish or pinkish circinate patch. This patch varies in size but is usually about as big as a

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twenty-five-cent piece. It is very mildly raised and covered with a fine scale. There are usually no subjective symptoms, so that it is often overlooked by the patient or discovered accidently. As this patch grows older, it tends to increase in size and clear up in the center, developing into an annular lesion with a fine scaly border. At this stage it is often mistaken for a patch of ringworm, and vigorously painted with iodine and other antiseptics. Such measures, however, as a rule do not avert the onset of the secondary efflorescence.

It often happens that the herald patch is not recognized until the appearance of the disseminated secondary rash, but it can usually be differentiated from other lesions of the eruption by its larger size and more advanced evolution.

2. *Secondary Eruption.* This usually develops in a week to a fortnight after the onset of the primary plaque or herald spot. The onset may proceed slowly, lesions erupting in crops during a period of several weeks, or it may be so rapid and profuse as to cover the whole body surface overnight.

The predilection areas are: the neck, trunk, back, chest and extremities, rarely the face, scalp, or hands. Occasionally, solitary limited areas are involved, the rest of the body surface being spared, for example, a limited area in the groin or the involvement of the palms or the plantar surfaces of the feet alone. During hot weather, where there is much sweating, the "chafe" areas, that is, the axillae, the groins, and the submammary regions may be the ones most involved.

The essential elementary lesion of the disseminated eruption is a small, rose-colored, erythematous, non-infiltrated maculopapule. The eruption may consist of a scant few of such lesions widely scattered or it may be so profuse and abundant as to give the appearance of a generalized exanthem. In the early stage of profuse eruptions of sudden onset, the lesions, being approximately all of the same age, are liable to be of uniform size and shape and therefore may not show for a day or two the characteristic evolutionary forms so important in arriving at a diagnosis.

This early uniform maculopapular eruption of pityriasis rosea comes in for critical differentiation from toxic maculopapular erythemas, from secondary syphiloderms, from drug rashes and from the acute eruptive fevers.

In typical cases, however, the maculopapules gradually increase in size, and, as they do so, they begin to assume an oval shape and arrange the long axis of their oval along the lines of skin cleavage. As the oval lesions continue to increase in size they tend to clear up in their centers (central involution), the outer margin of this cleared-up area shows a cigarette-paper-like fringe. This is a characteristic diagnostic sign and is called by various names, "crinkle," "scale-crown," or "collarette." The larger oval lesions with their cleared centers bordered by the typical "crinkle" often have a peculiar medallion-like appearance. An eruption consisting mostly of medallion-like lesions of various sizes and in various stages of evolution is perhaps the most classical type of pityriasis rosea efflorescence.

However, where the maculopapules tend to come out in crops, which most usually happens, the eruption pattern will be polymorphous, for it will show a composite of small young maculopapules, larger maculopapules, small oval lesions arranged along the lines of skin cleavage, larger ovals showing the characteristic "collarette" or "crinkle."

The lesions are usually widely scattered and arranged discretely; however, several lesions may run together to form extensive plaques.

3. *The stage of defervescence and involution:* Usually during the third week the lesions of the secondary efflorescence having advanced to maturity begin to recede, dry up and are exfoliated in the form of fine furfuraceous scales. All treatment to be effective should be directed to hastening this maturation or drying up and exfoliation. Of course, in many cases crops of new lesions continue to erupt and go through the same changes during two or three weeks longer, however, as a rule by the end of the sixth to the eighth week the condition has usually run its gamut.

Symptoms: Most cases present no subjective symptoms, whatsoever, occasionally there may be slight itching. Cases too vig-

orously treated with keratoplastics and exfoliant drugs may develop intense and intolerable itching; untreated cases seldom itch severely.

Occasionally there are noted mild constitutional symptoms such as headache, mild elevation of temperature, congestion of the fauces and enlargement of the cervical and submaxillary glands. The presence of such symptoms ought as a rule to mitigate against the diagnosis of pityriasis rosea and other probable etiologic factors should be carefully ruled out.

Stokes[1] states that pityriasis rosea occasionally gives false positive blood Wassermann reactions. Since the eruption disappears spontaneously in about six weeks such disappearance might be ascribed to the effects of injudiciously prescribed antisyphilitic treatment. It is needless to mention the gravity of such a situation. One of us (H.L.M.) recently saw a patient with pityriasis rosea who was told by her family physician that she had syphilis because of a one plus blood Wassermann. She had been subjected to several blood examinations and had received neoarsphenamine treatment. The patient was terrified beyond words until told by one of us that the eruption was not syphilitic.

Diagnosis: The characteristic primary herald plaque, the secondary usually polymorphous, eruption consisting of various-sized maculopapules of pinkish rose color, and their evolutionary forms, consisting of various-sized non-infiltrated oval scaly lesions having central collarettes, and the arrangement of the long axis of the ovals along the lines of skin cleavage. Finally the usual absence of severe constitutional symptoms, and self-limited course in three to eight weeks.

Pityriasis rosea must be differentiated from:

1. The eruptive fevers such a rubeola, rubella and scarlet fever. With their characteristic constitutional symptoms and course.

2. From toxic erythemas of obscure etiology exhibiting disseminated maculopapular eruptions.

3. From drug eruptions due to coal-tar synthetics, copaiba, quinine, the barbiturates, and many others.

4. We have seen the occurrence of typical pityriasis-rosea-like eruptions in patients during the course of antisyphilitic treatment with arsphenamines and bismuth and with gold salts in lupus erythematosus. These are cases of mild drug idiosyncrasy. Such eruptions may recur with each injection of the drugs mentioned, but usually promptly subside.

5. From the disseminated roseolar, maculopapular, and superficial annular syphiloderms of the efflorescent secondary period of syphilis. Here critical evaluation of history, mucous membrane involvement, lmyphatic gland involvement, general constitutional symptoms, and serologic findings serve to differentiate.

6. From psoriasis of the widely disseminated acute type where the lesions exhibit only the mildest trace of thickening and the very mildest type of scaling. Here, occasionally, will be found typical mother patches in the predilection areas such as the scalp, elbow points or knee points. Careful search will reveal lesions with the usual silvery scale on scratching. The history of recurrences may also afford a clue.

7. From seborrheic dermatitis: The ordinary types of seborrheic dermatitis involving the scalp midline of the chest and midline of the back in the form of more or less thickened circinate, annular, or polycyclic patches covered with greasy scales, usually present no difficulty in differentiation from pityriasis rosea. However, widely disseminated seborrheids occasionally occur in the form of maculopapular lesions or superficial annular scaly plaques which may have a striking resemblance. The spread from the midline of the body or from the scalp or from behind the ears and the findings of tell-tale greasy scales may help. Moreover, one does not find the central cigarette-paper-like crinkle in the seborrheid, nor the patches arranged in the cleavage lines of the skin.

8. From ringworm: Some of the disseminated superficial epidermal types of ringworm of the tinea circinata type have to be differentiated from pityriasis rosea. For many years preceding the critical work of Gibert, and even afterwards, the Austrians and other Europeans continued to confuse the two conditions. The difference seems clear—

a. Superficial disseminated tinea circinata is due to a ringworm fungus, not difficult to isolate and examine microscopically from scrapings of the lesion.

b. The advancing annular border in a ringworm patch shows a rosary-like ring of fine miliary vesicles.

9. From "phytids": Vegetable micro-organisms or mycoses may cause inflammatory lesions on the skin and produce in these lesions certain toxins which get into the blood stream. Occasionally the skin becomes sensitized to such toxins and eruptions of many types may result. Some of these may bear a striking resemblance to pityriasis rosea. Severe athlete's foot, ringworm of the beard, deep ringworm of

the scalp in children and other localized mycotic diseases may produce such phytids.

10. From pityriasis versicolor: These are symptomless, cafe-au-lait or fawn-colored, chronic patches on the chest and elsewhere, often called liver patches. These patches may last for years. Scraping yields fine scales containing a mould Microsporon furfur which may be demonstrated microscopically. A resumé of the etiology of pityriasis rosea is in effect nothing more than a series of opinions and observations in isolated cases.

Etiology

Oppenheim's[2] theory of causation is that the portal of entry of the disease is through the primary plaque by a ringworm organism; that the spores of this organism get into the blood stream and that the secondaries are due to embolic thrombi into the fine capillaries of the skin.

Veiel[3] believes that the disease is of exogenous origin, and due to some factor, microbic or otherwise, found on new, unwashed underclothing made of rayon or batiste. He relates the cases of recurrent pityriasis rosea with the appearance of the herald spot at the right side of the neck due to the wearing of an unwashed batiste blouse. After the first rash was cleared the blouse was reworn without washing and the herald spot and secondaries recurred. After the conditions cleared a second time the blouse was washed with no recurrence of the disease.

Photinos[4] also believes the disease is contracted through knitted undergarments, and woolen garments especially when these are new or have been long laid away in a damp place and are put on without previous washing.

Lord[5] states that pityriasis rosea is a feebly infectious disease, the causative organism of which has not yet been discovered, and that the portal of entry is the herald spot.

Benedeck[6] believes that pityriasis rosea is an allergic rash secondary to schizosaccharomyces.

Treatment

Most cases recover spontaneously in four to eight weeks. There is no specific internal medication which will abort the development of the disseminated eruption or shorten the course of the disease.

The use of non-specific protein therapy as advocated in some European clinics is useless and unwarranted. No internal medication known at the present time is of any value to lessen the severity of the eruption. Calcium lactate in level teaspoon doses, three times daily, is used by some authors during the active dissemination period.

Local Applications: As a rule ointments and oily applications do not serve any purpose and occasionally seem to aggravate the condition. Local treatment should be directed to the attempt at fostering maturation of the eruption by helping to dry up the lesions and promoting exfoliation of the mild parakeratic patches. Too frequent bathing or excessively hot baths not only seem to make the eruption more profuse and intense, but, at the same time, delay the drying of the patches.

Keratoplastics such as sulphur and tar, except when used in mild concentration, are contraindicated. They tend to irritate the skin and often superimpose a dermatitis, thus adding an acutely itching complication.

Strong keratoplastics and exfoliants of this type should not be used.

Calamine lotion without phenol is by long odds the best local application. The finely divided powder particles of this shake mixture penetrate the minute crevices of the lesions and by their hygroscopic action exert a distinct drying effect. The lotion should be dabbed on several times per day. Occasionally one to three per cent ichthyol added to the lotion enhances its effect notably where the patches tend to show some slight thickening.

A very excellent method of achieving mild keratoplastic exfoliant effect is by means of the ultraviolet light or cold quartz. Norman Walker[7] recommends an erythema dose of the mercury vapor lamp.

We believe that erythema doses of either cold quartz or ultraviolet irradiation are too irritating and unnecessary. Divided sub-erythema doses serve better. They usually promptly quiet the itching and promote exfoliation of the lesions in two to three weeks. Sub-fractional doses of x-ray at weekly intervals, not more than two or

three such doses, are of value in shortening the duration and favorably modifying the symptoms and course of the disease.

In a series of 24 cases covering a period of 3 years an attempt was made to evaluate the effect of sub-fractional x-ray irradiation on pityriasis rosea patches.

Certain areas were irradiated and adjacent non-irradiated patches were used as controls. It was found that the irradiated areas became lighter in color and the lesions disappeared in two to three days.

Areas exposed to sub-fractional doses of x-ray and suberythema doses of cold quartz cleared up more rapidly than areas exposed to cold quartz alone.

Occasionally lesions of pityriasis rosea of the face and neck yield in a few days to one sub-fractional dose of x-ray although two or three treatments are the rule.

Comment

Pityriasis rosea is a disease of great importance from the standpoint of differential diagnosis. Since it has a wide range of eruptive manifestations, it must be differentiated from seborrheic dermatitis, pityriasis versicolor, phytids, the eruptive fevers, ringworm of the glabrous skin, and dermatitis medicamentosa. Above all, it should be diagnosed from several types of syphiloderm of the secondary efflorescent period.

Sub-fractional x-ray, cold quartz and mercury vapor lamp are of distinct value in hastening involution of the disease.

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Treatment of Menopause at Milwaukee County Dispensary

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THE menopause is that period in the life cycle of the human female in which the ovarian hormonal influence is withdrawn. It is a wide span. Tendrils of its effects are often felt in the early thirties, and as late as the fifth decade. During this trying era sufferers may become obese, apathetic and fretful. Normal balance of emotion and perspective is lost. On the physical side we see "flushes" and flashes," headaches, obesity, dizziness and other less constant evidence of a definite disturbance. Irritability, insomnia, dissatisfaction, in combinations or degrees often approaching the psychotic, are common.

The cause has been understood for years. The withdrawal of the ovarian hormonal influence is admittedly, as previously stated, the etiologic factor. There are two types, natural and artificial. The production of the second type demonstrates the cause of both. We quote Doctor Novak: "That the menopause is produced by the withdrawal of ovarian secretion is universally accepted. That the ovarian hormone is estrogenic substance is indicated by considerable evidence."

Abnormal physiology of the menopause resulting in the various symptoms mentioned is best described as being caused by a gland *imbalance*. Thus we liken the endocrine system, operating perfectly, to a balance wheel. On the periphery are numerous weights (glands) carefully arranged to insure smooth revolution. Remove a weight. The fly wheel will wobble badly. Depending on whether the gland exerts a marked effect or not, and on whether the whole gland secretion is withdrawn or not, the removal results in a disturbance of greater or lesser degree. Naturally various syndromes are possible. Thus we see evidences of abnormal thyroid, pituitary or adrenal function, such as hyper or hypotension, obesity and emaciation.

The treatment in all definite cases is "follicular hormone" designated by various manufacturers as theelin, amniotin, progynon, etc. Some patients do not require estrin because their symptoms are mild and harmless, or because they have ovaries whose hormonal activity may be sufficiently reactivated by small doses of thyroid gland. We insist, however, that in all moderate-to-marked disturbances the follicular substances hypodermatically are the proper treatment. This substance is a chemical entity, soluble and recrystallizable. It is easily standardized and fairly constant in effect.

Emil Novak speaks of the apprehension with which women view the oncoming menopause. In many cases, he believes, advice alone is sufficient. A minority of these women, however, are made miserable for months and even years, because of the severity of the vasomotor symptoms. He says further: "If there is anything more nearly rational or more effective than estrin therapy now available for this indication, I do not know of it. . . . There would seem to be no excuse for oral administration of the older forms of desiccated preparations of whole ovary, corpus lutem, or ovarian residue, when commercial preparations of the hormone, with demonstrated laboratory potency, are now available."

Dr. Sevringhaus says: "Clinical experience with estrogenic preparations for menopausal complaints has gone beyond the point at which their efficiency can be considered as due to suggestion."

August Werner, et al., report satisfactory results attained in the treatment of involutional melancholia with theelin. We might bring in also the work of Gregory Stragnell who treated seven cases of amenorrhea with progynon. Menstrual periods were produced with huge doses of the estrogenic substance. We do not believe that any permanent cycle was established.

It is our intention to discuss the treatment and results of ordinary menopausal conditions seen at the Milwaukee County Dispensary in 1934 and 1935. We have prepared and grouped for future presentation other less usual manifestations responding to estrin. Thus we will not discuss hypertensions of menopausal origin, dysmenorrheas of functional or glandular etiology, endocrine arthritis, obesity, and a series of women whose precordial pain and distress disappeared under the above mentioned routine.

Report of Cases

In a series of 155 menopausal cases treated with hypodermic theelin we have checked the results with reference to commonly accepted climacteric symptoms such as "flashes," "flushes," vertigo and nervousness. Of these, 98 were natural and 57 were artificial. In general, the artificial menopauses were more violent. We have noticed, however, that many women suffering the surgical loss of just one ovary underwent almost immediate mild symptoms, usually responding in whole or in part to treatment. In 1934 and 1935 there were 389 cases diagnosed as menopause, of whom only 39 per cent received theelin.

Some of our cases were as young as 30 years; others were over 50. In all such unusual cases diminution in menstrual flow, coincident with onset of trouble, sudden weight increase, or some other clue pointing to the gland (often plain medical despair) suggested the gland therapy.

Of 155 cases the number of good and fair results was 126 or 81 per cent. The remaining 19 per cent are reported as questionable. In using the term "good," "fair" and "poor," we have included under "good" those cases showing decided improvement, and often complete subsidence of symptoms. Under "fair," are grouped all those feeling better and anxious to continue treatment, but still having symptoms. Some of these latter are complicated by cholecystitis, cardiac disease, etc. Under "poor" we have listed those cases which show no improvement, questionable improvement or those who did not report for more treatment presumably because of not being relieved.

We realize that the inclusion of some of this last group tends to lower our percentage of therapeutic success in comparison to other observers, but we feel we are willing to

forego this slight margin of success in an effort to present an unbiased report.

The economic aspect so important in any clinic is favorable. One popular product, if bought in lots of 100 ampules, costs 21—23 cents per ampule. Each ampule contains 50 to 2000 international units. We have favored the use of the 1000 and 2000 unit ampules, feeling that our effects are more prolonged. The average requirement of one ampule or less per week is certainly less expensive than the usual amount of bromide substitute. It is decidedly cheaper than the oral preparations.

Our opinion, based on our experience of the past two years, points to a variation in time of required treatment of from six weeks to three years with an approximate average of eighteen months to two years. We find that thyroid adjunctive treatment has frequent value especially in reducing hypodermic dosage. Also it is true that injections may be decreased in frequency as time goes on.

Technique may be dismissed by saying that the material is injected deep into the gluteal or deltoid muscles.

Conclusion

In conclusion, we wish to note that the treatment of the more severe menopausal symptoms has been accomplished satisfactorily in a high percentage of cases by the use of theelin; that the cost of this treatment is reasonable; and that other forms of treatment are far less rational and not nearly as successful.

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The Significance of Essential Hypertension in General Practice

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THERE are few disorders of greater importance to the general practitioner than hypertension. Not only is hypertension one of the leading problems which challenge the profession for solution but it is one about which new theories and new therapies are incessantly advocated. The introduction of the sphygmomanometer into clinical medicine made the problem of blood pressure seem very simple. But this simplification was more apparent than real, for in many instances it made the taking of blood pressure a mere routine. A great number of physicians saw in hypertension the disease and were oblivious to the important etiological factors in the background.

Considerable confusion exists because of the variety of ideas and theories advocated by the authorities in this field. Among the many problems, the most important one concerns the relationship of elevated blood pressure to the changes in the arteries. Whether arteriosclerosis causes high blood pressure or is merely an effect has been debated extensively. Following the work of Bright, for many years it was thought that the contracted, shrunken, hardened kidney was the primary cause of high blood pressure. This theory was given up during the middle of the last century and the controversy over the relationship of arteriosclerosis to hypertension began. The modern view is that hypertension follows a peripheral vasoconstriction brought about by stimulation of the vasomotor system. The exact cause of this vasoconstriction is not known; some believe that it is hormonal in origin and others think it is toxic. Within recent times, interest in the

etiology and pathogenesis has been stimulated by surgeons who operate upon the autonomic nervous system in an attempt to control hypertension. The surgeons assume that hypertension is caused by a peripheral vasoconstriction and that by cutting the controlling sympathetic nerves the peripheral constriction is overcome. Several of these operations have been described. Page and Heuer[1], Adson[2] and Peet[3] have employed these procedures. Peet's operation has become most popular. He performs a bilateral resection of the major and minor splanchnics with resection of the lower dorsal sympathetic chain. Such measures, he believes, remove renal vasoconstriction, interrupt the pathway of stimulation of the adrenal gland, and prevent a large vascular area from undergoing vasoconstriction from stimulation. Whether or not these surgical methods prove eventually to be of lasting value, they have augmented our knowledge of the processes involved in the production of chronic hypertension.

All theories concerning the cause of hypertension assume that there is an increase of peripheral resistance. Whether this peripheral resistance is brought about primarily by vasoconstriction and followed later by organic vascular changes or the chief cause consists in vascular degeneration followed by hypertension is a controversial point. Volhard[4], a profound student of this problem, believes there is a premature aging of the arteries and arterioles, characterized by a loss of elasticity and dilatability of the arterial tree. He stated that the vasoconstriction which occurs is secondary in nature, and represents a hypersensitive state of the arterioles.

Kylin[5] is opposed to Volhard's view and believes that the high blood pressure results from functional vasoconstriction. The sclerosis of the kidney, he thinks, is the result of the vasoconstriction, not the cause of hypertension. He believes that the vasoconstriction is due to a neurosis of the vegetative nervous system, the cause of this disturbance probably being due to alterations of the glands of internal secretion. The hyperfunction of the anterior lobe of the pituitary in his mind is one of the chief endocrine disturbances which cause high blood pressure.

There are advocates of the theory that hypertension is due to a hypertonicity of the muscular arteries and arterioles of the entire body. Prinzmetal and Wilson[6] have shown by studies on blood flow that in hypertension there is an intrinsic vascular hypertonus which is spread generally throughout the arterial system. From their investigations they believe that the vasomotor activity which is present is merely a superimposed factor and not the chief one causing the high blood pressure.

In support of the theory that a rise in blood pressure is caused by a widespread vasoconstrictor action, Hines and Brown[7] described what is known as the cold pressor reaction. This is a test to measure the generalized vasomotor tonus and ice water is used as a stimulus. The patient is allowed to rest in a quiet room for 20 to 60 minutes. The cuff of the sphygmomanometer is placed on one arm and the opposite hand is placed in ice water, 4° C., to a point just above the wrist. Pressure readings are taken at the end of 30 seconds and again at the end of 60 seconds. The maximal reading obtained while the hand is in ice water is taken as the index of the response. The maximal response usually occurs within 30 seconds. In normal people the blood pressure returns to basal level within two minutes; in hypertensives there is a delay in the return of the blood pressure to its previous level.

With this test, 98 per cent of all subjects with hypertension have abnormal maximal responses to the test. Individuals with no hypertension but with a family history of hypertension also show abnormal responses. Finally, the patient with no tendency toward hypertension shows a normal response.

Regardless of the various theories proposed, the clinical and pathological studies of many cases show some tangible facts. In appraising the usefulness of any theory of hypertension we must not lose sight of the fundamental fact that in all cases of chronic hypertension there is arteriosclerosis. When there is a moderate hypertension the arteriosclerosis is moderate and limited chiefly to the muscular arteries of the pre-arteriolar type and when there is severe hypertension

the arteriosclerosis is widespread and there is extensive involvement of the arteries and also the arterioles.

In order to understand the part played by the various types of arteries in the body we divide them into three kinds: (a) the large elastic type such as the aorta and axillary and main branches of the abdominal aorta; (b) the muscular, middle-sized and small ones, as exemplified by the interlobular renal arteries; and finally (c) the arterioles, as the afferent glomerular arteriole.

An outstanding characteristic of all arteries is their elasticity and on this feature depends their efficiency. In arteriosclerosis there is a progressive loss of this resiliency and this I believe is the most probable cause of hypertension. Obviously in the very early stages no histological lesions are seen because at the onset it is a functional disorder and not organic. Under the microscope one cannot see an early loss of vitality, of elasticity and resilience, but as deterioration progresses there is a thickening of the internal elastic lamina and an increase of the capillary basement membrane; this may be discovered in the early stages of hypertension by special staining methods. When the large elastic arteries of the body are involved alone, hypertension does not develop; hardening of large peripheral arteries is therefore no sign of high blood pressure. If the muscular arteries of the smaller and smallest type are diseased, then high blood pressure of mild form, commonly called benign, is present. Lastly, as the arteriosclerotic process extends and invades the arterioles of the vital organs, severe hypertension is seen and this is called malignant hypertension. Going hand in hand with this loss of elasticity there are vascular changes which gradually progress to the point where they can be seen under the microscope. During the early stages of hypertension there may be great fluctuations in both the systolic and diastolic pressures. Such features may be attributed to the exaggerated response of the diseased blood vessels to stimulation. As time goes on, pressure becomes more stable and this stability is dependent upon the degree of inelasticity and organic changes in the smallest arteries as the diastolic pressure is a measure of peripheral resistance and indicates to a large extent the degree of loss of elasticity of the arterioles. When the diastolic is constantly high and fixed at a high level, it is safe to say that the arterioles and the finer divisions of the arterial tree are the site of an arteriosclerotic process and on histological examination, such are uniformly found.

The Clinical Course

When confronted with a case of chronic hypertension the chief question is, "What is the significance of this hypertension and what can be done about it?"

In trying to unravel the perplexing theories of etiology and pathogenesis we must not become oblivious to the fact that, after all, the condition of the arteries, *not* the height of the blood pressure, is the thing of chief importance and interest to the clinician.

Mere inspection of the patient often helps to determine whether the condition is serious. If there is a general involvement of the finer and finest arteries the patient will be pale and if there is a lesser degree of the disease he will be ruddy. The pale hypertensive, in contrast to the red hypertensive, has widely constricted arterioles. In such cases the diastolic pressure is greatly elevated and usually fixed at a high level. In consequence of the widespread arteriolar disease, the kidneys, the brain, and the heart are usually involved, and the prognosis in such cases is unfavorable. Inspection may be further applied in the study of the vessels of the eye with the ophthalmoscope. Ophthalmoscopic examination reveals the actual condition of the smallest vessels and reflects the condition of the smallest arteries throughout the body. Narrowed, bloodless, white arteries, rendered obscure by the retinal edema, associated with red, full, and tortuous veins are found in these pale hypertensives. Fresh hemorrhages, old healed scars of former hemorrhages, white patches, and choked discs indicate the widespread vascular deterioration. Such eye ground changes indicate malignant (or pale) hypertension.

The majority of patients with hypertension have the so-called red or benign type.

Such patients are beyond middle life and usually are ruddy, plethoric, and heavy. Their complaints are mild and few; often they do not know that hypertension even exists unless informed by an examiner. They belong to the well-known group of patients who go to a doctor's office feeling well and come away suffering from the weight of a column of mercury. These patients live on as a rule many years without any serious complications that attend hypertension. Some sensible advice as to the mode of living, a little reduction of diet, and a small amount of some sedative are all that are required in most instances. Regarding the examination of the vascular tree, it is safe to say that the record of the diastolic pressure in conjunction with the eye ground examination is a fairly accurate guide to the degree of involvement of the smaller and smallest arteries.

In the diagnosis of the hypertensive patient we are mindful of the fact that the kidney often reflects the degree of change in the smallest arteries. The presence of albumin and casts and red cells lead us to a more searching analysis of renal function. If the specific gravity of the urine is low and other functional tests of the kidney show inefficiency, the hypertensive patient has a gloomy outlook. On the other hand, good renal function, and absence of albumin and casts and cells point to a good prognosis. Not that the presence of albumin and casts is so significant per se, but it indicates a widespread involvement of the smallest arteries. It may be said that in pale hypertension there is renal involvement and in red hypertension there is not.

Of all the essential organs the heart is the one that bears the brunt of the load in hypertension. We should remember the fact that the heart furnishes the force by which high blood pressure is kept high. Despite a great increase of peripheral resistance, no hypertension exists if the heart becomes weakened. The systolic pressure is especially apt to be reduced in the presence of heart failure but the diastolic at times also falls. As a rule the patients with high blood pressure live on for years without developing the symptoms of an embarrassed heart. But as time goes on the majority of them develop cardiac insufficiency. A period from ten to twenty years elapses at times before the heart breaks down. I should like to emphasize too that when the heart begins to fail, periods of remission may alternate for a brief time with periods of discomfort, but the downward trend of the disease is inevitable.

In a general way the diastolic pressure is a gauge of the load thrown upon the heart and blood vessels. A very high diastolic blood pressure is incompatible with longevity. Therefore, in examination of the hypertensive patient, the condition of the heart is of first importance. Statistics vary, but from fifty to eighty per cent of all hypertensives die finally of cardiac defeat[8]. Simple measures are all that are necessary in determining whether the heart is responding normally under the strain. Usually there is left ventricular hypertrophy which can be determined by simple palpation. The degree of enlargement is not an accurate guide to the degree of efficiency, but large hearts fail earlier than smaller ones. The heart rate is frequently not given sufficient consideration in prognosis. A slow hypertrophied heart will wear out much less quickly than one that is rapid because the slow heart is better nourished than the rapid one. In hypertrophied heart muscle, nourishment is more important than in one that is normal. If the rhythm of the heart is normal, the cardiac reserve force may remain unimpaired for years.

One of the most important signs of cardiac disability in hypertension is the development of gallop rhythm. This irregularity indicates that the heart muscle is breaking down under the strain. In conducting the examination, the patient should be exercised, because gallop rhythm, tachycardia, and other irregularities of heart action may appear above the threshold of clinical recognition only after some strain is placed upon the heart.

Paroxysmal nocturnal dyspnea is by far the most important early symptom of left ventricular weakness. Unless its significance is known, it may be confused with nervousness, insomnia, or some disease of the

lungs. Dyspnea or sternal distress coming on after light exercise, especially when formerly the exercise caused no discomfort, is a reliable sign of cardiac embarrassment. Yet shortness of breath may fail to occur during the day when the patient is working and develop at night while he is resting—a type of dyspnea often seen among laborers.

The exact cause of heart failure in hypertension is not entirely clear. Averbuck[9] studied the cause of heart failure in forty hypertensive patients. Thirty-four patients (85 per cent of the cases studied) had significant coronary artery involvement (sclerosis or thrombosis). He concluded that in the great majority of cases the heart failure in hypertension is caused by coronary artery sclerosis and thrombosis which cause degenerative myocardial damage and eventual heart failure or sudden death.

Finally one must be mindful of the fact that the patient with mild benign hypertension may escape apoplexy, heart failure, and renal failure and yet develop what is popularly considered malignant hypertension. I am aware of the fact that many authorities believe that benign and malignant hypertension are two separate disease entities. Yet I[10] am convinced that the clinical and histological changes in malignant hypertension differ from those in benign hypertension only in degree. The lesions of both forms are of the same general pattern. Clinically, it appears that malignant hypertension is a later phase, a more rapidly progressing lesion occurring in a vascular system that is more vulnerable than usual to unfavorable stimuli and more responsive to excitation than in the benign phase. Most patients whom I have studied with malignant hypertension are those who have had the so-called benign form for many years before the onset of the malignant phase. It must be emphasized that in the malignant form the blood pressure is more excessive and persistent, especially the diastolic phase. Violent headache, stormy rapid course, sudden loss of weight, and typical eye ground changes are the main features of the malignant phase.

Finally it should be recognized that there may be transitional stages between the benign and malignant, that there may be various degrees of severity of both the benign and malignant forms, and that those with the benign form may die, whereas those with the malignant phase may live for a number of years.

Treatment

At present there is no specific treatment for hypertension. I should like to emphasize however that I am not in accord with those who are therapeutic nihilists regarding this disorder. Some learned clinicians maintain that no treatment is required and that none is of any value. Every patient with a mild, essential hypertension is a candidate for malignant hypertension, heart failure, uremia, or apoplexy. Not to do all in our power to forestall these remote consequences seems to me a shirking of responsibility.

There are some general therapeutic indications that appear to be of value. We know that there are individuals whose hypertension disappears with rest and a minimum of drug therapy and there are others who are not so fortunate. In therapeutics there is no disease where the post hoc, ergo propter hoc reasoning is more likely to lead us into fallacy. Merely increasing the patient's periods of rest frequently reduces the hypertension and complete rest may cause the blood pressure to drop to normal. If nothing more is done than giving a simple explanation of the disorder for the purpose of relieving the patient's anxiety, I believe something is accomplished. An outline for proper mode of living is frequently more important than a prescription for medicine. For the plethoric, obese person a reduction in diet often is followed by remarkable results. I like to emphasize that excess weight throws an extra burden on the heart just as would be done if one carried around a bag of cement. Shorter working hours, more sleep, less food, and loss of weight are the chief therapeutic aids. Although a number of drugs have been praised from time to time, none of them has ever had a sustained popularity.

Concerning the results of surgical treatment of hypertension, I believe we shall have

to wait a number of years before drawing final conclusions. The idea is developing rapidly that, after all, hypertension is a disorder too complex to be explained on simple vasoconstriction. Modern workers are accepting the theory that there is an initial intrinsic vascular disorder. Engrafted upon this fundamental change in the tissues of the vascular tree may be the lowering of the threshold for sympathetic nerve impulses. The operations of course alter only the constricting influences of the nervous system and not the underlying vascular disability.

Patients should be urged to live in conformity with their constitutional background. One should advise them to develop their lazy streaks and refrain from leading the full and vigorous life because the gentle and tranquil existence harmonizes more with their nature.

It is safe to say that although many measures for treatment of hypertension have been advocated, few are of any value and that they are of only a limited use. One may summarize the medical treatment of hypertension by a modification of the patient's activity, a reduction in the intake of food, and the administration of a mild sedative in order to secure rest.

Summary

1. The present state of our knowledge concerning the pathogenesis of essential hypertension is reviewed.

2. It is pointed out that the chief change in hypertension is not vasoconstriction but a fundamental change in the elasticity of arteries and arterioles, and that these early changes are evidences of premature aging characterized later by genuine arteriosclerotic lesions.

3. The significance of hypertension to the individual is measured in terms of cardiac, renal, and brain involvement as well as the integrity of the arteries.

4. Benign and malignant hypertension are contrasted and it is stated that "red" and "pale" are merely other terms for benign and malignant.

5. Contrary to the modern idea, it is emphasized that benign and malignant hypertension are not different diseases but stages of one great process, differing from one another only in degree of intensity of the vascular lesion, in the course, and in the final outcome.

6. The treatment is summarized. Surgical operations upon the autonomic nervous system are discussed. It is too early to draw final conclusions, but the idea is gaining ground that the vasoconstriction is only secondary and that operations only relieve vasoconstrictor influence. The real cause of hypertension is something more subtle, more elusive, involving the very life of the arteries themselves. Superimposed may be a nervous factor influenced by surgery.

7. A program outlining a mode of living is more important than medicine in hypertension, although diet, rest, and loss of excess weight may have a favorable influence upon the course of the disease.

8. The hypertensive is often a person who is trying to do something he was not intended by nature to do. A life more in conformity with his natural resources often halts the progress of the hypertension.

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Conditions Causing Constipation; Mechanisms of Production and Methods of Management*

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CONSTIPATION is generally delayed, difficult, or insufficient intestinal elimination. I shall discuss the subject from the standpoint of causes, mechanisms of production, and management.

The causes of constipation readily group themselves into two types: (1) functional, and (2) organic. In the first type must be included many factors which at first thought might seem rather elementary; however, one is constantly surprised at the total lack of comprehension by the average adult of what is necessary for normal intestinal function. The large intestine is a hollow tube of considerable capacity, which is illustrated by the fact that enormous amounts of water administered as enemas can be retained by it. This hollow tube literally floats in the abdomen, the mesentery serving merely as a guy-rope and not as a support. The large intestine is essentially two organs. The right half, from the mid-gut, has embryologic features in common with the small intestine, absorption being its primary function. The left half is derived from the hind-gut, and the storage of digestive waste products, until they can be conveniently eliminated, is its chief function.

Causes

Interference with the time of performance of the very important function of defecation is the cause of much human misery. Irregular habits of going to stool, inadequate intake of fluid, improper eating habits, unnatural expenditures of nervous energy brought about by the hustle and bustle of our present everyday life, with resultant migraine and other bodily dysfunctions, are only a few of the conditions interfering with normal colonic function.

Among the organic diseases causing constipation, may be mentioned some of the most serious that afflict the human organism, for example: cancer, benign tumors of the polypoid type; such inflammatory lesions as chronic ulcerative colitis, amebiasis, tuberculosis, and diverticulitis; perforating lesions; Hodgkin's disease; volvulus; foreign bodies; benign strictures; anal infections; hemorrhoids, and appendicitis. These and other less common conditions may so seriously interfere with satisfactory evacuation of feces that serious physiologic disturbances ensue.

Mechanisms of Production

The mechanisms by which constipation is produced are many. The normal human being has no trouble with constipation; primitive man was not troubled with constipation. Constipation is a word which entered the language with the advent of modern civilization. It is a symptom resulting from interference with normal gastro-intestinal reflex.

At night the entire body rests. With the stirring about associated with one's morning toilet, intestinal activity is set in motion. Breakfast inaugurates a gastro-colic reflex and in due time is followed by the defecation reflex. If this is obeyed at all times, functional constipation will not occur. It is, however, possible to interrupt it voluntarily. Our present-day manner of living promotes many activities which make it easy to interfere with the defecation reflex. We arise in the morning and from that time on everything is done in a hurry. We hurry the toilet, hurry the breakfast, and hurry to the office. As the defecation reflex is interfered with on successive mornings, it becomes less and less pronounced until it is no longer perceived. Here we have then an active interference with normal defecation. If the normal impulse is denied often enough there will gradually develop the so-called atonic consti-

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pation, with its resultant retention of feces. Associated with this may occur the symptoms of nervous fatigue, and from then on it is easy for someone to find symptoms suggestive of so-called colitis.

Other interferences with proper elimination include improper position during defecation, and as has been said inadequate intake of fluid and food. Early man squatted at defecation; our modern toilets are often too high for a small person, particularly for a child. In such a case there should be a stool for the feet. We should assume the squatting position as nearly as possible. Sufficient time should be allowed for the act. To prevent the temptation of hurrying, the seat should be as comfortable as possible. In this connection it may be well to recall the correspondence of some noblemen of the seventeenth century, before the days of modern plumbing. They described commodes of rare porcelain, with velvet seats. One possessor of such a treasure would bring it to the room of another, and, wrote one of the correspondents: "they pass hours together in this delightful way," adding that, "there is not a constipated person who would not get diarrhea on such a commode." This is merely to emphasize the importance of a comfortable position during defecation.

There must be enough bulk in the food for the sacculated tube to be able to move forward a mass. The food residue acted on by intestinal bacteria forms the bulk of the feces. There must be enough liquid in the colon to keep the stool soft. Every time food or drink is imbibed, a train of reflexes is set in motion. Consequently, it is most important that substantial meals be taken at very regular periods of the day.

The causes of constipation described so far concern themselves with the nervous control and the content of the hollow viscus known as the colon. There is another much more potent and more serious cause of constipation, namely, a localized narrowing of this tube resulting from organic disease. The resultant constipation in such cases is purely in the nature of mechanical interference with the passage of material through the colon.

Cancer of the colon is essentially of two types: polypoid adenocarcinoma and the annular scirrhous type. The former by its growth into the lumen of the intestine gradually fills it up with a bleeding cauliflower-like mass; the latter by its napkin-ring-like encircling of the bowel and progressive infiltration of the wall, slowly constricts it like a puckering string.

Benign tumors, such as large polyps, lipomas, hemangiomas, and fibromas, cause constipation much as polypoid carcinomas do.

Tuberculosis and amebiasis cause constipation only in one form of the disease, that is, in hyperplastic tuberculosis and amebic granuloma. Here there is slowly progressive interference with the passage of the fecal current. More usually it is in the nature of a sudden or gradual change from diarrhea to inability to have sufficient elimination.

Perforating lesions usually cause sudden interference with the passage of stools, but their presence has usually been ushered in by previous intestinal symptoms. There are striking exceptions to this rule, however, and some lesions of the colon have perforation as a first symptom, with at times complete interference to the passage of feces. Notable among these lesions is diverticulitis, in long-standing cases of which few or no symptoms are present until perforation takes place, when all of the symptoms of a ruptured appendix develop, except on the left side.

Intra-abdominal Hodgkin's disease causes difficulty of intestinal evacuation by external pressure on the bowel and by infiltration of its wall. Volvulus of the sigmoid occurs as a sudden twisting of this segment with resultant complete obstruction. Fish bones, coins, and other foreign bodies cause constipation by mechanical blockage and local inflammation of the region where passage of such objects is delayed. Anal infections and hemorrhoids cause constipation not only by mechanical means, but in a functional way as well; because of anal tenderness and pain, patients may delay proper evacuation, and in due time the reflex becomes dulled.

Patients with chronic ulcerative colitis describe two types of so-called constipation:

There is the type occurring in any regional inflammatory disease when a segment of colon proximal or away from the rectum is involved, namely, interference with or delay in passage of material through a narrowed segment of bowel. There is another more serious type which is subjectively more annoying to the patient. When great narrowing of the rectum and rectosigmoid occurs from this disease, and when the bowel is relatively normal proximally, patients complain of constipation when in reality they may pass a dozen or more bloody rectal discharges daily. A bottle-neck type of narrowing occurs at the rectosigmoid where the stools accumulate, and a patient will strain to evacuate, thereby squeezing out bloody, purulent material from the rectal wall as from a sponge.

Treatment

Management of the various types of constipation obviously implies individual treatment of the diseases and functional disturbances causing them.

Advice regarding the functional causes of constipation is sometimes rather difficult to give, although certain general principles may be laid down. Treatment is individual, as will become evident from a review of the mechanisms by which constipation is produced in these cases. Management implies careful examination of the habits of going to stool and of eating and drinking. It also implies control and regulation of the nervous system. It means regulating habits of living and obtaining plenty of rest and proper recreation. Frequently it also means the reduction of intestinal irritability by the use of sedatives and other drugs. Any type of intestinal irritability, be it functional or organic, will increase the amount of mucus secreted. The presence of visible mucus usually does not imply intestinal disease, but rather irritation and subsequent increase in the production of the intestinal lubricant. Lubrication, and protection against harmful bacteria are probably the chief functions of intestinal mucus. Intestinal mucus is not a product of inflammation; hence any method for the reduction of intestinal mucus or rendering it invisible, or at least convincing the patient that it is not harmful, may be an important part of the control of constipation.

The organic diseases which have been described as causing variable types and degrees of constipation have rather well-defined types of management. Accordingly, one need not dwell here on the treatment of cancers and other types of tumorous processes. Up to a certain stage they all lend themselves well to surgical operation; beyond this, and in certain distinct cases in which lesions are inoperable, radiotherapy may be indicated. Treatment of the inflammatory diseases such as chronic ulcerative colitis, amebiasis, and tuberculosis has been well described previously. Foreign bodies and fecal impactions require surgical or digital removal. For the latter, hot irrigations with 25 per cent hydrogen peroxide solution are sometimes helpful. In cases of diverticulitis the relief of obstruction, together with intestinal relaxation and lubrication, are necessary. These ends are best accomplished by careful dietary regulation, administration of some form of antispasmodic drug, and mineral oil. It has been our custom, varying with the severity of the symptoms, to allow these patients a relatively residue-free diet and to give hot colonic irrigations until the symptoms of obstruction subside. Then the diet is gradually changed to a bland, anti-constipation type. Tincture of belladonna to physiologic effect, given by mouth, has served as a satisfactory antispasmodic. The stools should be kept soft and to promote this and to encourage lubrication, mineral oil has been given by mouth and at times by rectal instillation. When these measures become unsuccessful, colostomy may be necessary. Colostomy alone, followed by through and through irrigation of the affected segment of bowel, may cause the involved portion to heal. Months later, the colonic stoma may be closed. Rarely does resection of the involved segment become necessary. The treatment of each one of these conditions, however, is a chapter in itself and can be dealt with only briefly here.

Jaundice in Arthritis; With Report of Two Cases*

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IN 1933 Hench[1] reported on seventeen patients observed in a four-year period in whom the analgesic effect of hepatitis and jaundice in chronic arthritis, fibrositis, and sciatic pain was noted, and has recently stated that he has observed a total of forty-four cases up to the present time.[2] In 1934 Sidel and Abrams[3] reported an additional series of four cases showing the analgesic effect of jaundice in arthritis.

In the past two years we have seen two patients suffering from a diffuse myofibrositis and periarthritis, whose pain was appreciably diminished with the development of jaundice. Neither patient had used cinchophen prior to the development of jaundice. Hench has stated[1] that a selected group of rheumatic patients was being treated with various bile substances, but no report has yet been made. The reason for the analgesia and the mechanism of its action is not clear. It was interesting that although an intense degree of jaundice was present in each of our two patients, and the degree of rheumatic pain from which each patient suffered was graded two plus on a basis of four, that the analgesic action of jaundice although definite was incomplete. It continued, however, during the time the patients have been under observation.

There has been considerable controversy regarding the production of hepatitis by cinchophen medication. It would have been quite natural to assume that the jaundice had been produced by cinchophen in our two patients if they had used it. This suggests that possibly some of the patients who have been reported in the medical literature as developing jaundice following the use of cinchophen would have done so regardless of the use of this drug. I have found no reports in the literature of patients who have not had relief from their arthritic pain upon the appearance of jaundice. Neither have I observed such patients myself.

* From the Sacred Heart Sanitarium, Milwaukee, Wisconsin.

Case Reports

Case No. 1. Miss I. M. McC., single, 49 years old, for one year had complained of flatulence, belching, constipation, and upper-mid and lower-right-abdominal tenderness. Gastro-intestinal x-rays, including gallbladder visualization, were negative. Appendectomy was performed. The gallbladder was found normal at the time of operation. For one year she had complained of weakness following exertion, excessive perspiration, and diffuse muscle and joint aching, particularly in the left knee and the fingers. She remained ambulatory. There was no evidence of acute inflammation. Several dental extractions were performed, and the teeth were said to be badly infected. This was followed by tonsillectomy, and the tonsils were said to contain pyoid material when examined following their removal. There was slight improvement after tonsillectomy. Six days before admission she became nauseated, vomited, and was unable to retain any food for two days. On the third day she became jaundiced. She had taken no cinchophen. She was sixty-six inches tall, and weighed one hundred twenty-five pounds. Skin and mucous membranes were a deep chrome color. There was no evidence of inflammatory change in any joint. Following the jaundice, patient stated that the aching was distinctly improved. On admission routine blood count and urinalysis were negative. Van den Bergh test: Direct reaction—strongly positive; indirect reaction—twenty mg. of bilirubin per one hundred cc. of blood. Nine weeks later the van den Bergh test showed: direct reaction—no change; indirect reaction—less than one mg. Three months after admission fluoroscopic and radiographic examination of the chest and gastro-intestinal tract showed marked pylorospasm with normal emptying of the stomach. Liver was about normal size with slight bulging in the midportion of the right lobe. Gallbladder visualization with intravenous phenoltetraiodophthalein showed fair function, no calculi, no evidence of pathologic change. She remained under observation for over five months, gained only three pounds in weight, the jaundice disappeared completely, and the diffuse aching markedly improved. Patient was seen two years later. She was teaching school, had gained weight, and was much stronger, with only slight aching.

Case No. 2. Miss D. M., single, 25 years old, was admitted because of nausea and jaundice. For two years she had felt intermittent, sharp, occasionally dull, left hip and groin pain of five to ten minutes' duration. One week before admission there was diffuse pain in both hips referred down the lower extremities. A similar pain was felt in the shoulders, and there was diffuse muscle aching. For six weeks

she had noticed on awakening in the morning that the interphalangeal joints of the fingers were swollen and stiff, and that the skin of her hands was slightly blue. There was no antecedent cinchophen medication. For two weeks her urine had been beer brown in color, and the stools were putty-colored. There was itching of the skin, and jaundice had been present for probably forty-eight hours before admission. She was sixty-nine inches tall, weighed one hundred seventeen pounds, and her skin was safron yellow. A sharp, slightly tender liver edge was palpable an inch below the right costal margin in the right midclavicular line at the end of inspiration. There was slight fusiform deformity of the proximal interphalangeal joints of all fingers bilaterally. Within four days after admission the jaundice began to disappear. Nineteen days after onset it had cleared up entirely. Following the appearance of jaundice, her diffuse aching and interphalangeal swelling improved. Laboratory findings showed a normal electrocardiogram. Van den Bergh test showed a strongly positive direct reaction with twenty-five mg. of bilirubin per one hundred cc. of blood. Complement fixation test for syphilis was negative with cholesterinized and Kolmer antigens. Blood count showed hemoglobin 11.5 gm. — 74% (Haden); red blood cells 3,760,000; white blood cells and differential blood count normal. X-rays of the chest and pelvis were negative, except for slight asymmetry of the brim of the true pelvis due to slight elevation of the right pubis.

Summary

In two patients suffering from diffuse myofibrositis and periarthritic changes marked relief followed the appearance of jaundice. No cinchophen had been taken by either patient.

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The Basis of Psychopathology

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MODERN medicine in its fight to overcome disease has in recent times proven that disease of the body may result from the lack of something[1], and when there is a lack of something, such as certain vitamins, the body shows a reaction manifested by a pathological picture which is more or less well defined. Scurvy is a practical example. Furthermore, modern medicine relies on a basic physiological truth in order to restore the body to efficiency and good health. This basic truth is Cannon's law, namely, that the body is not a machine, but a biological organism that always tends to be normal or to revert to normal. In the treatment of disease, physicians recognize the importance of this law and strive to surround the body with all the basic environmental needs, and also to nourish the organism with all the known substances proven to be necessary for the body. Examples of things they supply are sunshine, oxygen, good food and rest. In so doing, they are merely aiding a biological process which is inherent in the biological organism and which continues to assert itself as long as life is present. Without the presence of this biological tendency in the body, our efforts toward restoring the body to health would be useless.

Since I am a physician who has primarily interested himself in diagnosing and treating medical disorders, and who, by chance, has been connected with the Psychiatric Field Service of the State Board of Control of Wisconsin for more than seven years, it is natural that I should be aroused with the possibility of explaining crime and psychiatric disorders on a deficiency basis. During my contact with criminals, which began in 1926 when I was prison physician at the Wisconsin State Prison in Waupun, and which has been continuous since February, 1929, I have made over 20,000 physical examinations of inmates of various state penal and correctional institutions. I have been one of the two examining physicians who has recommended for commitment as insane, mentally deficient or epileptic, over three hundred inmates of the state penal and correctional institutions; I have also acted as

one of the examiners in over 500 commissions appointed by the Board of Control for the purpose of determining the advisability of sterilizing certain inmates of state institutions. In addition to this work, I have engaged in private practice in Madison on the days when I was not occupied in the state institutions. This has necessitated active contact with the private medical profession and has given me not only an understanding of the problems of institutional medicine, but also some appreciation of the problems of the man in general practice. Were it not for this arrangement, I feel certain that I would not have had the opportunity to apply knowledge gained in private medicine to the problems of institutional medicine. I only mention the above facts in order to show the reader that I have had some experience concerning the problem under consideration.

The fact that medical men were able to treat disease of the body with at least some definite idea of the cause of the conditions they were treating, always made me feel more comfortable in the role of a private practitioner than in the role of a psychiatrist. Psychiatry seemed to be groping in the dark, with considerable disagreement as to the methods and approach to the treatment of mental and nervous disorders. This situation was disturbing until it suddenly occurred to me that possibly the mind had some mechanism which would tend to keep it normal or have it revert to normal, provided that certain needs were satisfied. With this in mind—to find, if possible, what instincts were in the mind that must be satisfied—I began to search.

Since it is agreed that the disturbances manifested by the mentally disordered and criminal are actions contrary to the welfare of society, it was evident that I must look for these instincts in the mechanism that directed man's actions, i.e., the intellect. It is agreed that a successful man is a man who thinks before he acts. Common sense would indicate that the opposite is true—namely, that he who acts before he thinks is not successful. Therefore the thinking man must have some guidance because in general his actions are not contrary to the welfare of society. In order to ascertain what the intellect had to consider in directing the actions of man, I started my search in the biology of other kingdoms of nature.

Actions in animals are determined by instinct and are all directed toward self-preservation and self-propagation in order to preserve their species on earth. Nature has protected these animals by building them in such a way that they instinctively satisfy the laws of nature. It would seem reasonable to expect that nature gave man some protection and guidance in the direction of his actions in order to satisfy the purpose of his creation, namely, to preserve and perpetuate the genus homo on earth. In order to keep his kingdom intact and alive, he must direct his actions toward the maintenance of himself, the unit of his kingdom; and man being a social animal, it is natural that he direct his actions toward the maintenance of the aggregate of the units in his kingdom, i.e., society. In other words, in order to survive he has to learn to live harmoniously with his fellowman. Since these actions are directed by intellect, man must be conscious of his purpose in life, which is to follow the laws of nature. Since man is a thinking or rational animal, he certainly has to love one whom he follows, and, therefore, one must conclude that man loves nature if he fulfills the original architecture or purpose of nature. What then does nature expect of man's intellect?

First—that he always strive to direct his actions toward the preservation of man as a unit, i.e., Aggression. (Adler's Will to Power.)

Second—that he always strive to direct his actions toward the preservation of the society of man, i.e., social interest. (Adler's Will to Community.)

Third—that he direct his actions toward the fulfillment of the purpose for which he was created, i.e., pleasing nature. (Will to Nature.)

Therefore, if man's intellect is functioning according to the above three points, it will be logical to say that it is satisfying the natural instincts or needs of the mind.

We would, therefore, expect that the biological tendency to be normal, which is evident in the body of a man when all the vege-

tative instincts are satisfied, would assert itself in the mind and cause the mind to be normal, provided all the instincts of the intellect are satisfied. That this is true can be shown by mental hygiene observations. That the failure to satisfy these needs of the intellect results in mental disorder or behavior reactions contrary to the welfare of society, can also be shown from observations in psychiatry.

Let us take up a more detailed explanation of these three Wills of the intellect which man must be conscious of satisfying in order to maintain a peaceful mind.

Aggressive instinct, or the Will to Power, is most powerful in man because this instinct embodies the basic emotional trends in man, namely, self-preservation and self-propagation. These powerful instincts of the body are continually forging into the mind of man and demanding satisfaction. Unless man becomes conscious of their presence and the need for satisfaction or sublimation, he does not qualify as the original unit of man. Failure to adequately supervise these bodily instincts causes man to disqualify himself as a unit in the kingdom of man, and nature immediately sets up a mechanism that tends to cause reactions in the mind of that man resulting in abnormal behavior and consequent expulsion from the society of man. The social instinct, or Will to Community, tends to neutralize the aggressive instinct, and, by its development, man tends to decrease his ego or aggressive instinct. He is further aided in controlling his ego or aggressive instinct by the development of his Will to Nature.

That there is an interplay of forces tending to stabilize the mind can be shown by reference to mental hygiene observations. This is nothing more than a duplication of physiological activity in the body, where all physiological processes appear to depend on a maintenance of proper equilibrium. Thus Wiseman, Doan and Erf[2] point out the need for clinical investigation in "deranged physiological processes and more particularly in disturbed physiological equilibriums." These investigations which point strongly toward the existence of a fundamental physiological relationship between myeloid and lymphoid tissue, are, in my opinion, very important since they tend to make the physician rationalize toward the real basis of medicine, namely, that disease of the body is only a reaction of the body to something that is antagonistic to its welfare.

That there is a similar psychological equilibrium in the mind of man will be shown by cases and other experiments and observations. Thus if man tends to build up his ego, his social instinct becomes depressed and tends to inactivity. In this class fall your criminals and paranoiacs. These individuals try to compensate, unconsciously, for their deficiency in social instinct by overcompensation in the other instincts; they attempt to compensate for the dissatisfaction that comes in their minds by certain actions or affections.

But the greatest source of mental disorder comes from the failure of man to keep going in the continued assault on environmental difficulties. Man must be aggressive—he must keep his shoulder to the wheel. He must be conscious of the necessity of cooperating with his fellow beings to overcome environmental obstacles to health in both mental and physical aspects. When man turns his back on his work and refuses to go on, or when real effort is lacking, he starts a feeling of dissatisfaction which manifests itself in actions contrary to his own welfare and society's welfare. In this group are the dementia praecox type.

The practical application of the foregoing gives a biological approach to the further study of crime and mental disorder. Thus a scientific basis is laid for the modern penological treatment. The sub-cultural type of mental deficiency can be clearly explained on the basis of atrophy of the intellect due to disuse. General acceptance of this biological explanation of psychopathology, in my opinion, is the answer to "Finding a Way in Mental Hygiene."

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Estimation of the Blood Platelets as an Aid in Diagnosis*

By OVID O. MEYER, M. D.
Madison

ACCORDING to Wright[1] the blood platelets (thrombocytes) are formed from pinching off of portions of the pseudopods of the giant cells of the bone marrow, the megakaryocytes. This conception of platelet origin is the one generally accepted at the present time.

The function of the platelets is not established in all details but it seems quite certain that they play a major role in blood coagulation. In the process of coagulation, the platelets disintegrate due to their contact with ionized calcium. According to Cramer and Bannerman[2], coagulation does not occur without disintegration of the platelets.

The purpose of this communication is to emphasize the importance of the commonly neglected quantitative study of platelets as an aid in the diagnosis of various blood dyscrasias.

Except for a very few skilled technicians perhaps, the actual counting of platelets is an extremely inaccurate procedure. The present methods, the fragility of the platelets, and their tendency to clump and to stick to pipettes and other pieces of apparatus, all tend to increase the counting errors. Consequently it has seemed, in most cases, more valuable merely to study well-made and well-stained smears and estimate whether the platelets appear to be increased, decreased, or normal. With little experience one can easily judge this, and can even note whether the diminution, for example, is moderate or great. It is appreciated that slight changes cannot be distinguished by this method, but slight changes are rarely of any significance. It is the experience here that one is led astray much less often by these estimations than by actual counts, when ordinary technique is used.

In the accompanying table, there are listed the commoner conditions in which quantitative estimation of the platelets is of value.

Table

Platelets Decreased

- Acute Leukemia—Lymphoblastic and Myeloblastic
- Chronic Lymphocytic Leukemia
- Chronic Myelocytic Leukemia—Late
- Chloroma—Probably
- Pernicious Anemia
- Idiopathic Hypochromic Anemia—Usually
- Aplastic Anemia
- Thrombocytopenic Purpura

Platelets Normal

- Agranulocytosis—(Reduced if of arsenical etiology)
- Infectious Mononucleosis
- Lymphosarcoma
- Hemophilia
- Non-thrombocytopenic Purpura

Platelets Increased

- Chronic Myelocytic Leukemia—(May be normal)
- Hodgkin's Disease—Not always (May be normal)
- Anemia of *Acute* or Chronic Blood Loss
- Polycythemia Vera
- Banti's Disease—May be normal or decreased

The quantitative changes noted in the table are not invariable. They are, however, fully as consistent and reliable as the changes in the other components of the blood in many diseases, and therefore, useful diagnostic aids. In pernicious anemia, careful attention is particularly valuable for almost invariably the platelets are reduced, whereas in the occasional hyperchromic and macrocytic anemia of carcinoma of the stomach the platelets are usually normal or increased.

The value in differentiating thrombocytopenic and non-thrombocytopenic purpuras is obvious.

Estimation of the platelets perhaps is of greatest value in differentiating acute leukemia, in the aleukocythemic phase, or when there is slight leukocytosis, from agranulocytosis and infectious mononucleosis. Differential diagnosis in these conditions is often extremely difficult and every aid must be sought. Aside from the other considerations, such as anemia which is common to acute leukemia and usually absent in agranu-

* From the Department of Medicine, University of Wisconsin.

locytosis, the platelets are almost always greatly reduced in acute leukemia and normal in agranulocytosis. Since the prognosis in infectious mononucleosis is almost always good, whereas in acute leukemia it is poor, the importance of early and accurate diagnosis is obvious. Very few individuals are capable of differentiating the two conditions from study of the morphology of the leukocyte alone. Naturally, all factors should be taken into consideration in arriving at a diagnosis. However, study of the blood smear and estimation of the platelets may be decisive, for very rarely are they significantly decreased in infectious mononucleosis.

Conclusion

Study of well-made and well-stained blood smears with quantitative estimation of the platelets is an aid in differential diagnosis of some of the commoner hematological conditions.

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Complete Congenital Absence of Vagina and Uterus

By D. N. WALTERS, M. D., and C. L. QUALLS, M. D.

St. Agnes Hospital, Fond du Lac

THE object of the writers in presenting this case is two-fold: first, the rarity of this anomaly, and, second, lack of adequate physical examination before instituting treatment.

It is interesting to note that this patient was treated for her menstrual disorder, and yet apparently no pelvic examination was made.

REPORT OF CASE

History: A stenographer, aged 25, had been looked upon all her life as a normal girl. The family history is not significant; she has a normally developed brother and sister. With the exception of the usual childhood diseases, she has been in good health until recently when she suffered an attack of acute appendicitis. The subsequent history of her menstrual period revealed the fact that she had never menstruated although she had received treatment consisting of a series of ultraviolet ray treatments and subcutaneous injections, probably theelin. Patient states that she never experienced hot flashes, backaches, headaches, sore breasts, etc.; she does give a history of epistaxis every month, of one day's duration, the regularity of which is not definitely known. In regard to her libido, she states that she has never had a desire for sexual intercourse, and is entirely without feeling for the opposite sex in this regard. She is a girl with at least mediocre intelligence, although she was entirely ignorant of her condition until the time of operation.

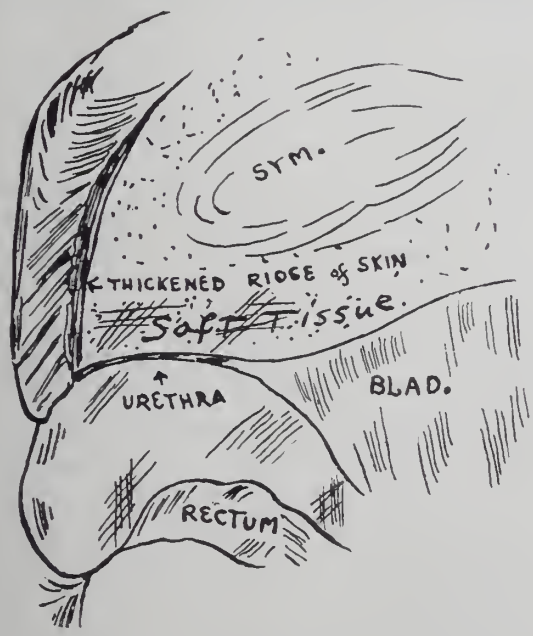

Fig. 1. Sagittal section showing absence of vagina.

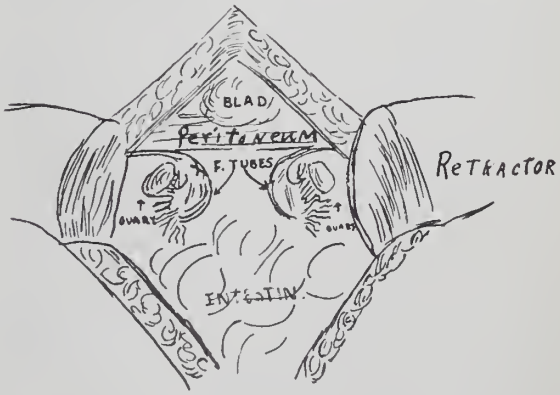

Fig. 2. Showing the termination of the fallopian tubes which are interwoven with the round ligaments.

(Continued on page 926)

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« « » EDITORIALS » » »

Periodic Health Examinations of the Young

ONE of the most serious deficiencies in the present practice of medicine is the failure of the general practitioner to provide periodic health examinations for the young. At the time of the six weeks' postpartum examination of the mother, supervisory medical contact with the infant commonly ceases, and is resumed later on only in case the infant becomes acutely ill. In the period following infancy the child often goes without the benfit of medical advice for years, even up to school age, at which time wholesale physical examinations of the first and second grades are provided for by the local woman's club or some other lay or semi-lay organization. A particularly unhappy reflection upon the shortcomings of the medical profession is the fact that only 21 per cent of all urban and 18 per cent of all rural pre-school children in the United States are immunized against diphtheria, and only 21 per cent of all urban and 7 per cent of all rural pre-school children vaccinated against smallpox.

This state of affairs, of course, is not as it should be. Instead, the routine policies in the practice of the medical man who does general work should include well-baby care at regular intervals, such as every month for the first six months, every two months the second half-year, every three or four months the second year, and pre-school observation once or twice yearly. With such a policy in effect the physician will make observations during the early years of life upon weight gain, diet, general nutritional status, development of coordinated movements, dentition, height, posture, vision, hearing, behavior, training, and so forth. In addition he will do blood counts and urinalyses from time to time, apply a tuberculin test upon indication and carry out immunization procedures against diphtheria, smallpox and whooping cough before the age of 18 months.

Such practice universally applied will maintain the health of the young at the highest possible level, will result in early discovery of pathological conditions, and will bring about a reduction in the present mortality and morbidity rates of infants and children. As the general practitioner is the medical man who is closest to the nation's families, accomplishment of this ideal can only be procured by the individual effort of each and every practitioner.

Of the various reasons advanced for the failure to provide routine care of healthy children, such as unwillingness, lack of interest, or inability to pay on the parent's part, lack of specialized training on the physician's part, and competition by state and civic agencies, none are first-rate and certainly not insurmountable. The real trouble, in most instances, is the failure of doctors to promote such work. Unquestionably, there are many parents who regard this sort of medical attention as unnecessary, and to these the idea must be "sold" in spite of the doctor's risk of being accused of "drumming up business." As a matter of fact, this accusation cannot exert much influence because public opinion at large is overwhelmingly interested in and appreciative of methods of improving the status of the child. On the other hand, there are many other parents, and perhaps a majority of young mothers, who, having been influenced by newspaper and magazine articles, P. T.A. speakers, radio programs, advertisements of some of the life insurance and drug companies in the popular magazines, and by contact with public well-baby clinics are already acquainted with the value of regular medical supervision of the young, and by these the suggestion of the employment of the doctor's services at regular intervals is welcomed with eager acceptance. Then there are those parents who expect it as a matter of course. In general it may be said that regardless of the character of his clientele a little promotional work by the individual practitioner will produce favorable response in many families in which regular medical care of the young has not been employed heretofore.

At times, and no doubt frequently in some practices, it will be necessary to make certain financial inducements in order to promote this program, such as special office call rates, special hours on a certain day of the week at special rates, addition of a small sum to the prevailing obstetrical fee for well-baby care up to the age of 6 months. By this last named method it usually happens that the mother becomes so impressed with the benefits derived she automatically continues the care at the regular office call rates.

Perhaps some physicians regard the care of infants and young children as being too specialized a subject for them. This idea, of course, is totally erroneous. Pediatrics is nothing more or less than general practice limited to the young, and there is no reason why the general practitioner who puts his mind to it cannot successfully guide and treat infants and children. Naturally he must apply himself and prepare for such practice. Properly prepared and concerned, he will regularly examine his young patients, his findings will be significant and his advice of great value.

The responsibility for this important phase of work lies directly upon the shoulders of the general practitioner. Is he going to assume it, or is he going to passively sit by and permit civic, state, federal, philanthropic and life insurance organizations to enlarge upon their work of this nature already actively engaged in by them until it is taken entirely out of the hands of those to whom it really belongs? J.E.G., Jr.

Prevention of Deformities

AS THIS Journal goes to press, we are informed by wire from Washington that a significant proposal of our advisory committee on crippled children and the department of crippled children of the State, has been accepted.

The Wisconsin proposal, in brief, contemplates that in the thirteen councilor districts of the State there should be held an afternoon and evening postgraduate session on the topic of "Prevention of Deformities." Participating in this postgraduate endeavor will be representatives of the specialties of orthopedics, pediatrics, and cardiology.

Courses in the northern portion of the State will be held at an early date to be followed by like courses in the southern portion. These courses will be without cost to the membership and it is hoped that the great majority will find it possible to attend. Watch for the notice of your meeting.

. . . . THE PRESIDENT'S PAGE . . . .

Our Obligation

AT THE time this is being written we are all quite concerned as to the outcome of an important National and State election. Many of us may have quite decided opinions and some even real convictions as to the effect of this election. Some believe, at least during these final days of the campaign, that if one candidate or set of candidates is elected our country's future will be imperiled. Others believe likewise, as to the opposing candidate or candidates. But regardless of the outcome of the election, after our regularly recurring attack of political hypertension subsides, we will find ourselves settling back to the job in the same old way for another four years.

When this page is published we will have elected in this State a new legislature which will undoubtedly have before it, during the coming session, many measures of vital importance to the public health, and it is of the greatest necessity that members of the medical profession stir themselves out of the political lethargy that often follows a campaign and see to it that every State and Federal legislator goes to his legislative session with a proper background and conception of what is desirable and what is not desirable as to the protection and improvement of the public health.

We know that the medical profession is the one source of reliable information on matters of health and consequently must exert every effort to supply this background that will enable the lawmakers to approach health problems at least with an open mind.

I believe that practically all members of any legislative body are not only willing, but anxious to perform the best type of service to the State or Nation, and it is only when they are uninformed or misinformed that their actions are detrimental to the public welfare.

So it must be put squarely up to us as individuals and as county societies to see that every legislator is properly informed. If this is done, I believe that the public will have little to fear from health or sickness legislation detrimental to their welfare. But get busy *now*.

S. E. Gavin

Society Proceedings

Barron—Washburn—Sawyer—Burnett

At the meeting of the Barron–Washburn–Sawyer–Burnett County Medical Society on October 2 at the Commercial Hotel at Barron, several moving picture films were shown by courtesy of Dr. E. S. Platou of Minneapolis and also by Mead Johnson and Company. The program included the election of officers for the coming year.

Brown—Kewaunee—Door

The Brown–Kewaunee–Door County Medical Society held its annual business meeting on Tuesday evening, October 13, at the Beaumont Hotel in Green Bay. Officers for 1937 are as follows: Dr. Walter P. Tippet, president; Dr. Walter E. Mueller, president-elect; Dr. Frederick C. Huff, vice-president; Dr. Wendell A. Killins, secretary-treasurer; and Dr. J. C. Colignon, censor. The program also included a report by Dr. E. S. Knox of his recent European trip.

Columbia—Marquette—Adams

The Columbia–Marquette–Adams County Medical Society and the Auxiliary met recently at St. Savior's Hospital, Portage. Dr. H. Caldwell, delegate, gave a report on the proceedings of the House of Delegates at the recent meeting in Madison. The following officers were elected for the ensuing year:

Dr. James MacGregor, Portage, president; Dr. R. B. Dryer, Poynette, vice-president; Dr. C. J. Radl, Wisconsin Dells, secretary and treasurer; Dr. H. Caldwell, Columbus, delegate; Dr. W. Costello, Randolph, alternate. The censors are: Dr. E. Tierney, Portage, Dr. L. V. McNamara, Montello, and Dr. H. Y. Fredrick, Westfield.

Crawford

The annual meeting of the Crawford County Medical Society was held at Prairie du Chien, September 23. Officers elected for 1937 are: President, Dr. H. C. Lund, Gays Mills; vice-president, Dr. T. F. Farrell, Prairie du Chien; alternate delegate, Dr. E. T. Ackerman, Gays Mills; secretary and delegate, Dr. C. A. Armstrong, Prairie du Chien. The State Board of Health tuberculosis plan, which will be arranged for by the medical society, will be in charge of a Tuberculosis Committee consisting of Doctors H. H. Kleinpell, S. M. Welsh, and T. E. Farrel, Sr., all of Prairie du Chien.

Dane

Dr. Harry E. Purcell, Madison, was elected president of the Dane County Medical Society at a meeting at the Madison Club on October 14. Other new officers elected were: Dr. L. V. Sprague, vice-president; Dr. J. S. Supernaw, secretary and treasurer; Doctors Harold E. Marsh and E. F. Schneiders, delegates; and Doctors W. A. Werrell and Albert R. Tormey, alternates.

Eau Claire—Dunn—Pepin

Dr. C. W. Mayo, Rochester, whose subject was "Surgery of the Colon," and Dr. E. J. Kepler, Rochester, whose subject was "Endocrinology," spoke at the meeting of the Eau Claire–Dunn–Pepin County Medical Society which was held at the Hotel Eau Claire on October 26.

Fond du Lac

At a dinner meeting on October 15 at the Hotel Retlaw, Fond du Lac, Dr. J. C. Devine, Fond du Lac, was elected president to succeed Dr. R. G. Raymond, Brownsville. Dr. E. H. Pawsat was elected vice-president and Dr. A. M. Hutter re-elected secretary and treasurer. Censors are Dr. J. H. Hardgrove, Dr. C. W. Leonard and Dr. A. C. Florin. Dr. D. J. Twohig is delegate and Dr. C. W. Leonard alternate. Reports of various committees of the society were submitted.

Juneau

The Juneau County Medical Society held its annual dinner and business meeting at the Hustler Hotel, Mauston, on Thursday evening, October 1. After the dinner and official meeting, topics of general interest were discussed.

Milwaukee

The first fall meeting of the Medical Society of Milwaukee County was held October 14 at the Milwaukee Athletic Club. The program included the following talks: "Acne Vulgaris," by Dr. J. W. Smith, Milwaukee; "The Cause and Treatment of Functional Uterine Bleeding," by Dr. Emil Novak, Baltimore, Maryland. A motion picture entitled "A Modern Medical Society" was also shown.

Oneida—Vilas

The Oneida–Vilas County Medical Society held a meeting on September 25, at which time the following officers were elected: Dr. C. A. Richards, president; Dr. R. A. A. Oldfield, vice-president; Dr. Lloyd F. Kaiser, secretary and treasurer.

Pierce—St. Croix

At the meeting of the Pierce–St. Croix County Medical Society held in Hudson, October 22, the following officers were elected for the year 1937: Dr. O. H. Anderson, Plum City, president; Dr. C. A. Olson, Hammond, vice-president; Dr. A. E. McMahon, Glenwood City, secretary-treasurer and delegate; Dr. O. H. Epley, New Richmond, alternate delegate; Dr. J. H. Armstrong, New Richmond, censor.

Polk

The members of the Polk County Medical Society were entertained by Dr. D. A. Maas of Webster at the Ike Walton Camp on Yellow Lake on Thursday evening, September 17. Dr. Clifford Franseen of

Boston, Massachusetts, son of Mr. C. J. Franseen of Frederic, was guest speaker. He has recently returned from a year of research work abroad and described cancer research and medical practices in Europe.

Rock

Dr. J. W. Harris, University of Wisconsin Medical School, gave a talk on "Recent Advancement in Clinical Obstetrics and Gynecology" at the monthly meeting of the Rock County Medical Society in the Monterey Hotel, Janesville, on September 22. Dinner was served to forty-five members.

Sauk

The Sauk County Medical Society held its October meeting on the 8th at the home of Dr. and Mrs. Fitz Winslow in Baraboo. The speaker of the evening was Dr. W. S. Middleton, Dean of the Medical School, University of Wisconsin, whose subject was "Some Familiar and Unfamiliar Drugs."

Milwaukee Neuro-Psychiatric

The members of the Milwaukee Neuro-Psychiatric Society held a meeting at the Winnebago State Hospital on October 22, where they were the guests of Dr. Gilbert E. Seaman.

THE WOMAN'S AUXILIARY

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Mrs. C. A. Harper, 520 N. Pinckney St., Madison
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Parliamentarian—
Mrs. J. Gurney Taylor, 845 E. Glen Ave., Milwaukee
Chairman of Nominating Committee—
Mrs. James Sargent, 2924 N. Stowell Ave., Milwaukee

COUNTY NEWS ITEMS

Milwaukee

At their first fall meeting of the year on October 9 at the Y. W. C. A., members of the Woman's Auxiliary to the Medical Society of Milwaukee County heard Dr. Chester M. Echols, president of the county group, discuss "The Place of the Medical Society in Community Social Service Work." His talk and a short skit entitled "Child Care" presented by the Community Fund Players followed a luncheon.

Mrs. J. H. Sure, chairman of the Membership Committee, introduced the following new members: Mrs. Paul A. Brehm, Mrs. Richard D. Champney, Mrs. Eugene M. Cleary, Mrs. Eugene L. Dallwig, Mrs. George J. Gumerman, Mrs. Frank Rettig, Mrs. Albert C. Schmidt, Mrs. N. Slutzky, Mrs. Harry Tabachnick, Mrs. A. F. Tessier, Mrs. William H. Marshall (associate), Mrs. F. Gordon McGloch (associate), and Mrs. J. H. Overbaugh (associate).

The Auxiliary voted to accept the recommendation of the Board of Directors that they equip a loan cupboard of bedside and nursing equipment for the Visiting Nurse Association at an approximate initial cost of $200. This will provide beside and nursing equipment without charge, or at a nominal rental cost for patients able to pay. A committee composed of Mrs. Oscar Lotz, Mrs. Earl Baum, and Mrs. Rock Sleyster gave this project careful study and consulted with the Advisory Council of the Medical Society before submitting it to the Auxiliary.

Outagamie

Dr. Carl Neidhold, Appleton, spoke at a meeting of the Auxiliary to the Outagamie County Medical Society on Tuesday evening, September 29, at the Conway Hotel, Appleton. His subject was the tuberculin test which the County Medical Society is giving to school children. Mrs. E. F. McGrath, Appleton, Mrs. Carl Neidhold, Appleton, and Mrs. J. J. Laird, Black Creek, who attended sessions of the Auxiliary convention held in September in Madison, gave reports.

Dr. W. W. Bauer, chairman of the Bureau of Health and Public Instruction of the American Medical Association, addressed 275 women at a tea given recently by the Auxiliary to the Outagamie County Medical Society. His subject was racketeering in the fields of health and cosmetics. Doctor Bauer was introduced by Mrs. J. J. Laird, president.

Racine

Convention reports provided an interesting afternoon for the Auxiliary to the Racine County Medical Society following a luncheon at the Hotel Nelson, Racine, on September 8. Mrs. I. F. Thompson presided. Mrs. H. B. Beeson's report on the national convention of the Auxiliary, held in Kansas City in May, was followed by comments by Mrs. R. D. Jamieson, who also attended the sessions. The report of the State convention at Madison, by Mrs. F. B. Marek, was augmented by incidental "highlights" as remembered by several others who were present.

Sheboygan

Mr. W. B. Senty, superintendent of schools, was the guest speaker at the regular monthly meeting of the Auxiliary to the Sheboygan County Medical Society which was held at the Candle Glow in Plymouth on October 7. His subject was "The Fundamental Urge of Life" or "Mental Drives that make People Act." Several musical numbers, under the direction of Mr. David Glazer, band director in the Plymouth High School, were also presented.

Waukesha

The Woman's Auxiliary to the Waukesha County Medical Society had its opening meeting of the season at the Avalon Hotel, Waukesha, on Wednesday afternoon, October 7. Reports were given by Mrs. J. B. Noble, chairman of historical collection committee, and by some of the delegates who attended the state convention at Madison. Plans were made for a benefit card party on October 20.

During the afternoon the women wrapped twenty utility bags and twenty bedside bags to be sent to the New York Red Cross headquarters to be distributed at Christmas time to soldiers and sailors of the American transports.

Winnebago

The Auxiliary to the Winnebago County Medical Society elected officers at a business meeting following a one o'clock luncheon on September 28 at the Valley Inn at Neenah. Mrs. E. B. Pfefferkorn, Oshkosh, was named president; Mrs. T. D. Smith, Neenah, vice-president; Mrs. Henry Kleinschmit, Oshkosh, secretary; Mrs. H. L. Baxter, Neenah, treasurer. Mrs. Pfefferkorn and Mrs. H. B. Romberg gave reports on the recent annual meeting in Madison, and Dr. Bryce Ozanne gave a talk on public health, emphasizing how housewives fit into the scheme for promotion of health.

TO THE COUNTY PRESS AND PUBLICITY CHAIRMEN

As your new state chairman of press and publicity, I bespeak your continued interest and cooperation. Will you kindly send your material to reach me not later than the eighteenth of the month?

MRS. F. J. PFEIFER,
New London, Wisconsin.

News Items and Personals

After thirty-six years on the staff of Marquette University School of Medicine and the Milwaukee Medical College, which was absorbed by Marquette University in 1911, Dr. Charles J. Coffey has resigned as head of the Department of Laryngology, Rhinology, and Otology to devote his entire time to private practice. Doctor Coffey received his bachelor of arts degree with Marquette's second graduating class in 1888, and studied medicine at the University of New York. His successor as department head will be Dr. William E. Grove, who has been an associate professor for the last year.

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Joint programs of the Wisconsin General Hospital staff and the University Medical School to be held in the Memorial Institute Building will include:

November 17—Symposium on the kidney.
December 1—Water balance.
December 15—Pediatrics program.
January 5—Program by eye, ear, nose and throat department.
January 19—House staff program.

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Thirty-seven physicians attended the testimonial dinner which was given on Wednesday, October 21, at six o'clock at the Hotel Marinette in honor of Dr. T. J. Redelings, of Marinette, and Dr. Edward Sawbridge, of Stephenson, Michigan. Each of the guests of honor was presented with a gold medal in honor of his fifty years of practice, and after the presentation each man gave a short descriptive summary of his work.

DRAMA OF "THE GUARDIANS OF YOUR HEALTH'

Each Tuesday, Wednesday and Thursday the State Medical Society presents "The Guardians of Your Health" over the state-owned radio station WHA, Madison (940). These health messages are broadcast at 9:00 a. m.

The schedule for this month:

Nov.	10.	The Doctor's Scotland Yard.
Nov.	11.	The Doctor's Scotland Yard.
Nov.	12.	Questions and Answers.
Nov.	17.	The Doctor's Scotland Yard.
Nov.	18.	Doctor Beaumont.
Nov.	19.	Public Enemies.
Nov.	24.	The Doctor's Scotland Yard.
Nov.	25.	The Doctor's Scotland Yard.
Nov.	26.	Exploiting the Deaf.
Dec.	1.	Health Racketeers.
Dec.	2.	Health Racketeers.
Dec.	3.	Physicians Recommend?
Dec.	8.	Health Racketeers.
Dec.	9.	Health Racketeers.
Dec.	10.	Molding Your Baby's Head.

Dr. and Mrs. W. C. Edwards, Richland Center, spent the last two weeks of September on a hunting trip in Wyoming. Although heavy snows made hunting difficult, they got two elk, a deer, and a wolf.

So that physicians visiting Milwaukee who desire to see certain types of operations or to visit clinics may readily learn where they are to be seen, The Medical Society of Milwaukee County has inaugurated a daily schedule which will be available through the Physicians' Service Bureau, the Society's twenty-four-hour telephone service, located in the Society's offices at 208 East Wisconsin Avenue (Telephone: Marquette 4131).

Schedules for the following day's operations will be received at the Bureau between 4:00 and 5:00 p.m. daily.

The continuation of this service, for which, of course, there is no charge, will depend upon the use made of it. Practitioners out in the State who come to Milwaukee are urged to avail themselves of this service.

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The annual dinner given by the Sisters of St. Mary's Hospital, Madison, to members of the staff was held on October 8. The following officers were elected for the ensuing year: Dr. E. F. Schneiders, president; Dr. V. B. Hyslop, vice-president; Dr. Ivan G. Ellis, secretary and treasurer.

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Dr. Joseph J. Grimm, Milwaukee, spent the first part of last month in New York, where he attended the meeting of the American Academy of Ophthalmology and Otolaryngology at the Waldorf-Astoria Hotel.

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Dr. E. F. Schneiders, Madison, attended the meeting of the Central Association of Obstetricians and Gynecologists which opened in Detroit on October 15. He presented a paper on "Cancer in Women."

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Dr. F. F. Bowman, Madison health officer, went to New Orleans the week of October 12 to attend the convention of the American Public Health Association.

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Dr. A. M. Hunter, Fond du Lac, addressed an assembly at the Senior High School on September 23. His subject was the goiter prevention program being sponsored by the State Medical Society in that city.

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Dr. L. A. Van Ells returned to his practice at West Allis on September 26 after a four weeks' postgraduate course in Chicago.

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Ethics in the medical profession were outlined and discussed by Dr. S. E. Gavin, newly elected president of the State Medical Society, at a luncheon meeting of the Fond du Lac Woman's Club and the Auxiliary to the Fond du Lac County Medical Society on September 28 at the Hotel Retlaw, Fond du Lac.

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Mrs. Sophie Rossa, Milwaukee, who described herself as a faith healer, was fined $100 and costs recently on the charge of practicing medicine without a license. She was arrested on the complaint of Mr. Walter A. Drews, chief investigator of the State Board of Health.

Dr. J. C. Wright, well-known Antigo physician who retired this month after fifty-five years of practicing medicine in Wisconsin, was honored at a luncheon given by the Langlade County Medical Society at the Memorial Hospital on October 14. He will spend the winter visiting his daughter and son in California and plans to return to Wisconsin next spring to spend the summer in Antigo.

Doctor Wright has been very active in both the county and state medical societies, having been secretary to the local society for years. He also served as delegate, having missed only five meetings of the State Medical Society in his years of service. During the later years of his life, Doctor Wright has spent considerable of his time writing poetry.

At the close of the luncheon, Dr. L. A. Steffen, president of the local society, expressed the feeling of the individual members in wishing Doctor Wright well in the years to come and in expressing his regret in seeing the doctor leave Antigo. Doctor Wright responded with a short talk and recited two of his own compositions of poetry. He was presented with a traveling bag by the society.

BIRTHS

A daughter to Dr. and Mrs. Ray F. Wagner, Oshkosh, on October 3.

MARRIAGES

Dr. John Tasche, Jr., of Sheboygan, and Miss Myra Mueller, of Sheboygan, on September 8.

Dr. John A. Booher, of Reedsburg, and Miss Esther Rooney, of Baraboo, on September 26.

DEATHS

Dr. Eugene D. Regan, Milwaukee, died on October 15. Born in Madison, he was graduated from the Milwaukee Medical College in 1898 and did postgraduate work at Bellevue Hospital, New York. Doctor Regan was an eye, ear, nose, and throat specialist, and a member of the Medical Society of Milwaukee County, the State Medical Society of Wisconsin, and the American Medical Association. For the last twenty-five years he was associated with the Mutual Building and Savings Association, of which he was president for ten years. Doctor Regan is survived by his widow; his mother, Mrs. John Regan of Milwaukee; a daughter, Mrs. Marian Hanson of Milwaukee; and a sister, the wife of Dr. F. J. Wilson of Paris, France.

Dr. Mathew McGonigal, who was born in Newboro, Ontario, in 1874, died on September 20. After teaching for several years in Newboro and Kingston, he entered Queen's University in Kingston and was graduated in 1904. He practiced in Sudbury, Ontario, for a short time and then opened offices in Loyal. Doctor McGonigal is survived by his widow, one brother, two sisters, and a nephew, all residents of Loyal.

Dr. Solomon Baumgarten, of Milwaukee, diagnostician, and x-ray specialist, died on October 11 at St. Joseph's Hospital. Born in 1897 in Vienna, he was graduated from the Medizinische Fakultät der Universität Wien in 1922, and for the last ten years has been associated with the Seelman Laboratories, Inc. Doctor Baumgarten was a member of the Medical Society of Milwaukee County, the State Medical Society of Wisconsin, and the American Medical Association. He is survived by his widow; a son, Ralph; and a daughter, Doris, all of Milwaukee.

Dr. G. I. Hogue, eye, ear, nose, and throat specialist of Milwaukee, died from a heart attack on September 28. He was born in Chicago in 1871 and was graduated from the Northwestern University Medical School in 1899. Following this he joined the United States army and served three years in the Philippines and China and during the Spanish-American war. Before locating in Milwaukee, he spent a year in London and Vienna studying eye, ear, nose, and throat work. During the World War Doctor Hogue served as a medical colonel with the Thirty-second unit hospital No. 22, and was active in the officers' reserve corps. He was a charter member of the American College of Surgeons, and a member of the Medical Society of Milwaukee County, the State Medical Society of Wisconsin, and the American Medical Association. He is survived by his widow and a brother, Oliver, of Chicago.

Dr. Robert E. Hickey, superintendent of the Division of Contagious Diseases of the Milwaukee Health Department, was born in 1885 and died October 8 in St. Mary's Hospital. He had suffered from a stomach ailment for about a year. A native of Milwaukee, he was graduated from Milwaukee Medical College in 1910. Before locating in Milwaukee, he was physician for the Duluth, Missabe & Northern Railroad, living in Duluth, Minnesota; and was also physician for the Newport Mining Company at Bessemer, Michigan. Survivors are his widow; a daughter, Jane; and four sons, Jerry, Robert, Jr., John, and Richard.

SOCIETY RECORDS

New Members

P. A. Duehr, 224 W. Washington Ave., Madison.
D. M. Britton, 2 W. Gorham St., Madison.
S. E. Epstein, Marshfield.
C. A. Vedder, Marshfield.
W. H. Scherping, 817 So. 8th St., Manitowoc.
H. J. Lee, 19 Jefferson Ave., Oshkosh.
W. P. Hamilton, Dodgeville.
S. B. Marshall, Hollandale.
E. J. Schneeberger, Hillsboro.

Changes in Address

J. P. Skibba. Kaukauna, to 217½ Main St., Oshkosh.
F. J. Naylen, Stevens Point, to Adell.
E. B. Pfefferkorn, Madison, to Oshkosh.
R. F. Wagner, Howards Grove, to 930 Oregon St., Oshkosh.
J. D. Fuller, Brandon, to Lomira.
T. E. Farrell, Seneca, to Prairie du Chien.
Chalmer Davee, River Falls, to Student Health Service, U. of Wis., Madison.

MEDICAL ECONOMICS

The Governor's Committee on Public Welfare; Its Concept and Efforts in the Field of Health

The meeting on Medical Economics held in connection with the Ninety-Fifth Anniversary Meeting of the State Medical Society of Wisconsin was called to order at eight-thirty p. m. in Great Hall, Memorial Union, Madison, September 9, 1936, by Dr. Ralph M. Carter, of Green Bay, the president.

Dr. Carter presented Mr. J. G. Crownhart, secretary of the State Medical Society of Wisconsin, and acting chairman of the Subcommittee on Health and Disability, who presented Father Grace.

Chairman Crownhart: Mr. President, we have the honor of having with us this evening, in addition to the speaker of the evening, a distinguished member of the Governor's Committee on Public Welfare. It is my privilege to present him to you and to ask him to come forward and be with us on the platform. Father W. J. Grace, Dean of the College of Liberal Arts of Marquette University, Milwaukee. (Applause.)

President Carter: The obligations of a citizen to his government, over and above his obligations to his family and in his business and professional life, are recognized by all. Yet I think it may be said that because the profession of medicine has discharged its obligations in a quiet, modest and unassuming manner, there are few who appreciate how fully medicine has indeed discharged its obligations to the State.

It was the State Medical Society of Wisconsin, organized eighty-five years ago, who first proposed and secured the adoption of legislation to create the first insane asylum in Wisconsin, now known as the Mendota State Hospital.

It was the State Medical Society of Wisconsin who over half a century ago proposed and secured the adoption of legislation creating a State Board of Health. It was the State Medical Society of Wisconsin that secured the adoption of laws to prevent the citizens of the state from being the victims of those who prey on the credulous sick through fraud, deceit and quackery. It was the State Medical Society of Wisconsin who secured legislation for the regulation of marriages, births and deaths in order that vital statistics could be compiled in this State to learn the major problems in the field of health conservation.

It was the State Medical Society of Wisconsin and its component organizations who initiated in this State the anti-tuberculosis movement. I am not here to outline the accomplishments of our Society and its public contributions but merely to try to indicate their great scope and beneficent effect.

In February of this year, the Governor of Wisconsin appointed a Citizens' Committee on Public Welfare to outline the future needs of our people. Medicine is represented on that committee by Dr. Smedal, of La Crosse, and we are told that one of the great fields of endeavor of the committee is that which pertains to health and disability. It is peculiarly fitting that the medical profession of Wisconsin should have the opportunity this evening to learn more of the committee's work and its field of effort. It is an honor to present to you Professor J. H. Kolb, of the Department of Rural Sociology of the University of Wisconsin, who at personal sacrifice has assumed the position of director of the committee's activities.

Concepts of the Committee

By PROF. J. H. KOLB
Director

MR. PRESIDENT and Members of the State Medical Society of Wisconsin: It is a very real honor to come here for reasons which I think will be obvious as I close the statements which I have to make.

I prefer to talk to you quite informally. It has been said that the Citizens' Committee has been in existence since the early part of spring. The work has been fully under way since May. We are operating on a number of independent funds, an original appropriation of ten thousand dollars coming from the emergency fund.

In a few broad strokes I will try to introduce you to what we are attempting to do. It is a huge job, and there are some things in connection with the work in which we are very seriously in need of your help.

This matter of public welfare is a very wide concept, as we are all commencing to realize. But, we have broken it down into four fields. May I simply enumerate these. Mr. Crownhart will then expand the explanation of one of those subcommittees in which you have a particular interest.

First, there is that phase we have designated as child welfare. A few years ago the State faced this problem from the standpoint of statute and need and the Children's Code was the result. However, not all problems were solved and we have a subcommittee working on them under the chairmanship of Miss Reeves, secretary of the Council of Social Agencies of Milwaukee.

The second committee is on health and disability, the chairman of which is Mr. Shattuck, vice-president of the Kimberly–Clark Corporation of Neenah, with George Crownhart as the acting chairman. If this were not quite so dignified a meeting as it is, I would say that George Crownhart is the "actingest" kind of chairman that we could have! It never could have been said more truly that a chairman was acting! I want to say to you we appreciate his service. While Mr. Shattuck was out of the country, Mr. Crownhart made it possible for the work of this committee to go forward very definitely.

The third is the committee designated as Public Assistance and Employment under a joint arrangement of chairmen with Judge Schlichting of Sheboygan and Father Haas of St. Francis. The latter being in Washington a good part of this summer, he has not been able to help as much as he had hoped, so Judge Schlichting is carrying on.

The fourth committee is that on Delinquency. Mr. Benjamin Poss of Milwaukee is chairman of that committee. They are meeting tomorrow.

Then there are three that you might call secondary committees: finance, personnel and administration. These committees will get into swing as we go on. But in the early stages it is these four problem fields we have been working in particularly, attempting to see if we can delineate the main issues there,

try to state them as problems, and then look toward certain recommendations. Those recommendations, of course, will have to take the form of finance, personnel, and administration.

So much for the scope, very briefly put, but I shall be glad to answer questions if I can or carry on discussion informally as we go on or at the close.

We are attempting to make the inquiry by the use of five methods. They all blend together, but the attempt is to see if we can get a picture of the extent and the character of the main problems in those four fields and to study and observe the institutions and the agencies which are working in those fields. The first logical thing seemed to be to gather together by statistical means a wide variety of material which is existent here in the capital city and try to correlate it as best we can. We have a staff working on that.

The time is such that we cannot make very many original studies, and I presume most of the facts we need are already extant. The question is one of putting them together, focusing them around these issues and seeing if we can interpret what they mean.

The second is the legal phase. Underlying this whole field is a network of legal arrangements which we are trying to study as carefully as we can with a staff of experts, analyzing the statutes, the opinions and the court decisions that have been given and even working out what they call the "session laws," so we will know in what session was introduced a certain amendment which was later discarded, and why it was discarded.

The next method is through the library. The Legislative Reference Library, of which we are administratively a part, is bringing together a fine collection of material. If any of you would like any information at any time on certain of these phases, I think we can supply it through this Legislative Reference Library material. This organization, as you know, stands in readiness to draft legislation, so it is important that the whole legal work be done before any attempt is made at drafting new laws.

The fourth method is one in which I think we have been particularly successful during the summer and we have designated it as "conference." I think Father Grace will agree that the committee has worked. We have not talked very much. In fact, this is the first time there has been any public talk about it. We felt it was better to work quietly, but I want you to know this is a group of people who has not been sitting in Madison or at home, but has been actively out in the State.

We have found one of the finest ways quickly to project ourselves into a problem was to visit some of the state and county welfare institutions, so we visited many of them. We have had conferences there and with people in the State.

I may be mistaken about this, but it seems to me only relatively important whether this or that particular piece of legislation is enacted in any one year, but I shall feel personally greatly compensated if men like Father Grace will take the interest and assume the responsibility which they are already assuming. Somehow they will find ways out, if they will put themselves unstintingly to the task as they are now doing. So that has been a major method of working during the summer.

The fifth method we have been working with is what I call the "county case studies." We have chosen five counties as somewhat representative of various areas of the State —Portage, Sauk, Chippewa, Forest and Sheboygan. The first four were chosen out of a wider sample of nine in which we have been working at the University since October, 1934, keeping informed as to the whole welfare and relief situation, and the total load and characteristics of the families as they have been "on" and "off." In those counties, the committee is attempting to get a little more of the local color, a little more of the human interest, a little more of the detail than we can get from those secondary and statistical sources. I am quite determined that we shall not come up at the end with any kind of recommendations which will not stand the test of these local counties.

We are attempting to organize Citizens' Committees in those counties so we will have an opportunity to discuss issues with them.

Purpose of the Inquiry

What is the purpose of the inquiry or why do all this? There comes a time in the life of every commonwealth when stock must be taken, when a situation must be looked over and examined. It has come to us in Wisconsin in the field of labor. It comes in the field of health, of education, but now it has come to Wisconsin in the whole matter of public welfare, because of three reasons; there may be others.

First, the needs and problems in this broad field we call human welfare have been greatly aggravated, as we all know, by the recent emergencies. There have been a series of them. Many of these problems have not been of emergency origin of course, but the emergencies have aggravated them and brought them to the surface in very stubborn form.

It was in 1931 that Wisconsin started its first public works program, when six million dollars were set aside and 7,500 needy men were put to work. Since 1931, through 1935, there has been spent in Wisconsin for welfare, including emergency relief, $348,500,000—twenty-three dollars per capita per year. Sixty-three per cent of that came from federal sources, ten per cent from state, and twenty-six plus from local governmental sources. That source has focused the attention there and many serious welfare problems are going continuously to have their origin there. I do not need to tell you that. You know that vastly better than I,—neglected health, for example.

Secondly, there has been an accumulating number of agencies and institutions attempting to cope with certain phases of the problem, working with certain aspects of the field but without sufficient opportunity, I think, for coordination. Illustrations of that are rather easy to find. We have taken certain segments of our problem, as soldiers and sailors' relief, children's work; we have added duty after duty to the Board of Control, duty after duty to the Board of Health, set up the Pension Department on the last day of the last session. These things need some review.

Thirdly, the provisions of the Federal Social Security Act, six of them in round numbers, compel us in the state to review this whole matter to see whether we can take full advantage of these provisions. The first is unemployment compensation; second, help for the aged; third, there are those provisions for the security of children. I think these fall into four groups: aid to mothers, crippled children, health provisions, and what is called child welfare.

Then there is the aid to the blind, and finally an extension of the public health service. Some of you have been participating in the latter, I think, through Dr. Hunter's Bureau of Maternal and Child Welfare in the classes in pediatrics and obstetrics. There are also the vocational rehabilitation provisions. Every one of these provisions has rather elaborate detail as to what the State must do if it is to be eligible to participation, and it is therefore advisable that a group of citizens take stock to see just how maximum benefit can be obtained.

The objective of the Citizens' Committee, then, to state it very briefly, is to appraise and, if possible, come to a consensus of opinion with respect to certain types of solutions for some of these major problems. Not the least of this job will be to decide what are major problems and what are minor ones, to decide what are the things that need to be planned over a long time and what has to be done now, and to determine how the "now" can be done in the light of the longer plan.

Preliminary Findings

Then, finally, I think you may fairly ask, "What are you finding?"

I can only speak for myself and entirely unofficially at this point, but there are two impressions which among others are boring in on me. I may want to revise them tomorrow, but I am sharing them with you tonight so you may look down into this situation with me. The two impressions, as nearly as I can articulate them, are these—first, there is a very wide variation over the State in what is done about these problems of welfare. Or, to put it in the affirmative sense, the impression is one of need for some means of equalizing opportunity—opportunity, for example, for competent medical care, for skilled handling of mental

difficulties, for some sense of trust or assurance of understanding treatment when overtaken by misfortune, or even by misconduct.

The second impression is that when you really get down to analyzing and thinking about most of these problems, the trail takes you right back to local counties and local communities, and what is done there depends in a very great measure upon the local set-up, upon the local personnel, upon local finances for such things as recognition, diagnosis, and care that has any promise at all of prevention.

These two impressions may appear to you as being paradoxical or as being correlative, whichever point of view you may have, but to me they are very definitely correlated.

The problem, then, might be stated as to how we can provide a wider opportunity over the whole State for treatment of these problems requiring certain general standards of adequacy, but at the same time keeping alive concern and definite responsibility back in local communities. Can this be done? My answer is, and I would be glad to have yours, that we must try.

May I give you now as sources for these two impressions four illustrations. One can not have visited the State Public School at Sparta and be quite the same again. I am not thin-shelled, I think, but I confess to getting a little emotional about some of those things. In fact, I think problems have to be lighted up with a real sense of human values before we are really going to understand some of them. So, unless you have stood at Sparta and have seen those 550 children, where there is provision for only 337, unless you have stood there and have seen those babies, just babies, row on row, infants who should never be there at all, and then have spread out before you a table chart showing the variation, county to county, community to community, in numbers in the institution, with no reasonable explanation as to why those children are there, and to have Mr. Lehman, the superintendent, tell you his staff is busy out in those counties attempting to re-establish homes so those children can go back where they belong, or working with local citizens and officials attempting to turn the tide away from that institution—unless you have seen all that you may not understand.

The second picture is at Chippewa Falls with a population of 1,500 feeble-minded, borderline, and all the other terms that we use for measuring this whole matter of mentality. One of our men came out of one of those institutions saying that he never knew anything like that existed.

Then, on the local side, to have them tell you you cannot have accurate diagnosis, accurate measurement of mentality, or be in an opportunity class to receive special training unless you live in a city of over 5,000, you begin to realize what it means to live where you do. If you are to be feeble-minded, or if you will commit crime, or in fact if you are to be born, it would be a great thing if you could choose the place.

I am interested in those rural youngsters out there in places of under 5,000, who have no opportunity whatsoever for these special classes or for these various skills which have been developed, back there in those communities without organization for giving them some chance at life.

Go with me, if you will, to Waupun. The first fact that will strike you sharply is that in the admissions to our correctional institutions, prisons, reformatories, industrial schools, there are more mentally deficient people than there are to the institutions of the State which were intended for them. In correctional institutions forty per cent of the admissions are designated in the records as mentally deficient. Seventy-eight per cent have never gone beyond the eighth grade.

Then, as you go back into those communities and see the wide variation in practice, of detention, of correction, of commitment, you have some idea of the problem we have with respect to these state institutions.

Finally, go with me to the institution for the tuberculous at Statesan. Dr. Thompson's report for 1935 suggests that ninety per cent of the cases that came to him that year were at such a stage of advancement that they had to be hospitalized immediately. Moreover, neither he nor the State exerts any control over those patients who leave, so that infection distributors can go on and on in local communities and in homes. There is much

you can do to help us with that particular problem.

I would like to say, in closing, that I recognize you as a group of professional people. I am sure you will agree these are problems that will require for their solution the finest kind of professional non-partisan attitude on the part of citizens who attempt to make recommendation for legislation or for organization.

My request of you is that you will help guarantee that we may pursue this work without those divisions which can easily creep in, for example, as between layman and professional, or between the rural and the urban, or between or among the various political persuasions, or between the northern part of the State and the southern. These are matters for recommendation and suggestion not by pressure groups, not by vested interest, but by a vital citizen concern.

President Carter: I am sure what we have just heard has been of much interest to all of us. On behalf of the Society I represent, Mr. Kolb, I wish to thank you.

In my preliminary statement this evening I mentioned that health and disability was one of the four principal fields of the committee's broad efforts. It so happens that since the inception of the committee the Secretary of our Society has been acting chairman of the subcommittee in this field. From him we will learn more of the committee's activities that directly concern us as physicians and citizens, Mr. Crownhart.

The Subcommittee on Health and Disability

By J. G. CROWNHART
Acting Chairman

I THINK Professor Kolb will agree with me when I say that possibly the town meeting and the school meeting are the best forms of democratic government. Today the complexities of governmental problems and the accompanying complexities of government make it seem a faraway thing, something impersonal, something we must follow but in the determination of which we have comparatively little voice and but comparatively little influence.

Professor Kolb, in his address to you tonight, was trying to bring home a major problem in government as a personal and a personalized problem, as a subject that must be our personal concern, not just alone as physicians but as citizens.

Let me turn now to the Subcommittee on Health and Disability, contacts with which I have enjoyed since early June. I want to tell you something about those who are members of this committee. There is Mr. Shattuck, the chairman, vice-president of the Kimberly–Clark Corporation at Neenah; the Reverend M. A. Simonson, secretary of the State Council of Churches, whose home is in Milwaukee; Professor Harold Groves, of the Department of Economics of the University of Wisconsin, a former state senator; Mrs. A. O. Blackstone, president of the Wisconsin Federation of Women's Clubs; Dr. Ewald C. Wetzel, president-elect of the Wisconsin State Dental Society; Dr. Eilef Smedal of La Crosse, and your Secretary. At each of our conferences we have enjoyed having with us Miss Helen I. Clarke of the Department of Sociology of the University of Wisconsin, a member of the executive committee of the whole committee. Behind even secretaries, and particularly behind acting chairmen, there has to be someone else who prods from time to time and says, "Here is the letter I sent out; you signed it," and the acting chairman takes the blame for what it says. If we worked the committee members overtime and too long, that was the acting chairman's fault. Behind the acting chairman in this effort has been the Assistant Director, Mr. Philip Flanner, formerly state director of the State Transient Bureau. I ask him to stand that you may know him.

At the dinner table, a few weeks ago, one of the doctors was comparing blends of tobacco. He said, "You know, the best tobaccos are always blends." I do not know the truth about that, but I do know this committee represents a blend of citizens, interested by the Governor in an effort to make

effective that which another blend of common sense and medical science in the field of health and disability indicates as possible of accomplishment.

Sometimes people pass off a Citizens' Committee or a legislative interim committee with the comment "it is just another committee." I think, in the field of health and disability, any committee that gets down to the ground and studies can do some extremely worth-while work. I cite just three examples here tonight of some work that has been done in years past that indicates that similar work can be accomplished with similar benefits, perhaps in other fields but certainly within the broad field of this committee's efforts in the future.

Back in 1913, Colonel Seaman tells me, the paretic rate of admission to our state insane hospitals was twelve per cent of all admissions. In 1935, it had been reduced under the direction of the State Board of Control to five per cent. State provision for the Wassermann test came in those intervening years. Each paretic who entered the state institution meant a public expense of five thousand dollars during his institutional life. This reduction in rate through a new service meant savings to the State and to all citizens of the State of three hundred thousand dollars a year.

It has been my privilege, on several occasions, to visit the School for the Blind at Janesville. I think the first time was when I almost fell off the roof installing the first wireless set for them in 1915. Four years earlier (1911) thirty one per cent of admissions at that school were due to gonorrheal infection at birth. In 1936, there were only three students out of 157 there for that reason, and in two of those cases, I am informed, the mother was not attended by a physician at birth. The answer is mandatory care of the eyes of the newborn—a law of 1911.

I want to turn to something even more dramatic, if it has not the same frequency. I think no physician, steeled as he is to do that which he knows he must do, could ever see a child who had swallowed a lye solution and not feel it right down in his heart. The mother prepared a solution of common lye to wash out the sink, stirred it up in a glass; it looked like water. The telephone rang. The mother answered it, came back and found her child had swallowed the lye solution, mistaking it for a glass of water.

Your State Society went to the legislature. We placed along the committee table a row of cans and pointed out that some of them said "Do not use on enamel because it will destroy it," but not one of them said anything about the fact that it was poison, and that some precautions must be taken in its use. You and other members of your Society asked that every can of common lye for household use be labeled "Poison," so that no child would ever run into that tragedy again. I have been surveying some of the hospitals and find but two cases of lye poisoning in Wisconsin at this time. At the state hospital where cases came in with some frequency, they could not recall when they had seen a case.

Such effort as these examples typify is tremendously worth-while. I know the present committee will never cover the entire and broad field, but I also know it is going to cover part of that field, and I hope that any part that it does cover is going to be extremely worth-while.

One cannot sit on these committees and not have a feeling that perhaps we, the people generally, are thinking of social and medical problems in terms of brick and mortar, instead of in terms of medical and social sciences and prevention. We have had to spend in the last ten years in this State a little better than $3,600,000 for absolute needed permanent improvements in our state institutions under the State Board of Control. The cost last year of thirty-six county asylums, excluding Milwaukee, the largest by far, was $1,200,000. The present state building need, estimated by the State Board of Control, absolutely essential at this time, calls for a program of nearly seven million and the State Board of Control in outlining to the legislature a proper ten-year building program says very probably it would cost in the neighborhood of thirteen and one half million dollars.

It costs us five hundred thousand dollars a year to care for the feeble-minded in our two state institutions and nearly a million dollars

a year to operate the Wisconsin General Hospital and the Orthopedic Hospital; $1,500,000 a year to pay for the institutional care of the tuberculous.

If it is true that we, the people, are thinking in terms of brick and mortar, what is it we are failing to do? We hospitalize the tuberculous, but as a State we spend not a cent to examine the rest of the family who may include incipient cases nor is such examination compulsory. We hospitalize the insane, but we do comparatively little on any broad scale in the field of mental hygiene. We have an overcrowded state general hospital because as local governments we fail to filter out and authorize care at home for those who do not need the specialized services that the State affords at its one institution of this type.

Our poor relief laws as relate to sickness are of the vintage of Queen Elizabeth's time. No one needs to tell you, the practicing physicians of this State, that our poor relief laws in this respect are poor indeed. We spend hundreds of thousands of dollars for buildings, and, comparatively speaking again, only hundreds for their staffing. Professor Kolb did some inserting parenthetically tonight, and I want to insert parenthetically at this point that I am sure no one appreciates more keenly the budgetary limitations which in themselves create the service limitations than does the State Board of Control for the institutions it governs.

This informal discussion is not a complete outline of the committee's work. It is rather more suggestive of the broad scope of the problems in which it is interested, which includes problems involving crippled children, infant and maternal mortality, deaf and blind, the medical care of school children, insanity, feeble-mindedness, tuberculosis, communicable diseases that can be controlled, distribution of services. This is not an all-inclusive index of the committee's interest or activities.

I would have you appreciate that the committee and no member of it considers itself or himself an investigator with a badge. We are proceeding on the assumption that we are trying to go forward from what we have and to perfect it as best we may in the humanitarian interest of the people of our State. How does the committee operate? I have introduced you to a staff member tonight, the associate director. Your Secretary has been acting chairman during the months past. We have been collecting and preparing preliminary data on this institution, that institution, this problem and that problem, and sending it, frequently by special delivery, to the committee members that they may have a chance to get this background before coming to a meeting. The committee members give on an average of a day per week to committee meetings. Actually what we do in this particular committee is to meet two days every two weeks. The assistant director is not content with working us daytimes, but works us nights also, so we get in a pretty full two days.

If we are visiting an institution, perhaps the first thing we will do is to have a chat with the superintendent. He outlines in a very general sort of way the purpose of his institution. Then we see at least every representative part of that institution. Following the inspection tour, we sit around the table and over here at one end is a court reporter. He is not there to report that this man tells it in exactly this word or that word, but to take the information we gather so that when we go home, and in another two weeks go somewhere else, we are not going to forget some of the salient points. The material is not for quotation.

As we sit around the table, the superintendent, or his medical director, sits down at one end with us and we start asking questions about some of the problems. For example, there is the subject of personnel. Does the staff represent the specialists that should be represented in order to give these people the type of care the State is trying to give them? Are there enough nurses, enough attendants? We turn to the subject of finance. What is the county's share in this burden? What is the State's share? Does the county's share prevent people from coming here who should be here? Then administration. How does his institution and how does his problem fit in with other state institutions, not just those managed by the State Board of Control but the Wisconsin General

Hospital and other state services? Is there that closely knit feeling there should be; that inter-relationship of service so that all benefit from that which the one may specialize in? And then how about his facilities? What are the x-ray facilities. the laboratory facilities? Are facilities present for the proper dental care? And then the subject of medical care comes up. Dr. Smedal comes into the picture at this point. We start talking about the advancement of science and what it is that can be applied in this field we have learned within the past ten years or perhaps within the last five or three or two years or one year. Are those facilities available to the staff? Are they making full use of them that the people of the State may have all that is at the command of medical science.

We come now to the most important question of all. I am sure if I were the superintendent of any one of these institutions I could not sit there day by day, and some of them night by night, and see the steady influx of people coming through my door without saying to myself: What can we do to prevent it? Now you hit the crux of the work of this committee.

I have heard it said by some we are interested in prevention so we will lower taxes. Well, I think that is a corollary. That is not the principal point. We are interested in prevention from a humanitarian standpoint, the same as you are interested in prevention in your practice.

Where have we been? At Statesan with Dr. Thompson; over at Mendota with Dr. Green; we had a long day with Dr. Harper and his department heads; we have been at the Northern Colony and Training School; Mt. Washington Sanatorium for tuberculosis; Eau Claire and Chippewa County Insane Asylums; and Bradley Memorial Hospital. This week on Saturday and Sunday we are visiting the Wisconsin General Hospital and the Wisconsin Orthopedic Hospital.

In conclusion, the committee's work up to this time has been a work of study. There have been no conclusions. We have been trying to get a background, trying to get this picture that Professor Kolb spoke about. There will be some conclusions and when by vote of the subcommittee those conclusions have been arrived at, in due time and due course they will be presented to the whole committee which numbers about thirty-six members. Then those members will have an opportunity to ask: How do you justify this? I presume we are going to have to stand up, Professor Kolb, and try to justify it. If they agree with us, it is going to the Governor, and I understand the Governor will send this report to the legislature.

I sense that Professor Kolb, Mr. Flanner, and I know that I speak for myself, appreciate keenly there are three open traps all set to be sprung upon any unsuspecting citizen or legislative committee. The first is unwillingness or failure to use the advice of experts. The second is failure to secure public support for the recommendations they make, for education must always precede legislation if the legislation is going to stay on the statute books and really accomplish anything. Then, third, we have sometimes seen the effort to embrace too much within the time or within the limit of a personnel that is available. I mention these traps because I want you to know we appreciate them and we are going to try our best, as I know the committee's thoughts, to avoid them.

Finally, this report is going to be a foundation if I read the handwriting correctly, not only for consideration by the legislature in 1937, but for the consideration of many future sessions.

When this committee's report is finally released to the public, if we cannot furnish all of it, that which refers to the whole field of health and disability is going to be sent to every member of this Society. I hope it may be released in time that you may discuss it informally, casually, over the table if you please with your representative in the Wisconsin legislature, be he assemblyman or senator. I want to say with certainty that your helpful advice as physicians will in this way play a most significant part in determining the future trends of your own government in this State. If you will do this, and I know that you will, you, the family physician, as no one else in all this State, can personalize this report on problems that are yours and mine.

The Hospital and the Doctor*

By MORRIS FISHBEIN, M. D.

Editor Journal of the American Medical Association, Chicago, Illinois

WHEN Thomas Percival wrote his "Principles of Medical Ethics" he wrote one section devoted entirely to the relationships of the doctor to the hospital. As I read those "Principles of Ethics" over again recently, I was impressed by the fact there was only one sentence in Thomas Percival's "Principles of Ethics" as they apply to the relationships of doctors to hospitals which would intimately concern us today. In that sentence he said: "The choice of a physician or surgeon cannot be allowed to hospital patients, consistently with the regular and established succession of medical attendance. Yet personal confidence is not less important to the comfort and relief of the sick poor than of the rich under similar circumstances."

In 1803, the hospitals were concerned only with the indigent sick, not at all with those able to pay. Today, of course, the hospitals are primarily for those able to pay. So Percival continued: "And it would be equally just and humane to inquire into and indulge their partialities, by occasionally calling into consultation the favorite practitioner."

Today we are confronted with some of the most serious economic problems that have ever confronted the medical profession. We come back again and again to that same principle, the importance of sustaining the personal relationship between doctor and patient which is fundamental to the best type of medical care. Unfortunately for us we have been unable to convince the economists, sociologists, politicians, and statesmen. A statesman has been defined as a dead politician. We have been unable to instruct them in the importance of this fundamental fact. They seem somehow to fail to realize how necessary it is that the patient have confidence in his doctor, and how necessary it is that we maintain that personal relationship between doctor and patient which, as you see, since the earliest times has been considered fundamental to the right type of medical care.

In fact, up to 1900 there were less than a thousand hospitals in the United States. In 1935, we had approximately 6,430 hospitals. In 1936, that number dwindled to 6,200. We have had in the past too many hospitals constructed according to an uneconomic system of planning,—according to whims and notions and ideas, which had no real medical bearing.

Back in the old days when a town received some money from the government they built a post office. That was about all you could obtain money for from the government then. Now you can obtain money from the government for all sorts of unusual purposes, including surveys.

In the old days when a town received money for a post office, they put the post office in the public square next to the courthouse and the mayor's office and fire department so it would be convenient for the people of the town. More recently we have suddenly discovered that the right place for the post office is next to the railroad station. That gives the government opportunity to build all the post offices over again.

In the old days, they used to build hospitals much on the same lack of science and efficiency. Somebody would decide the town ought to have a hospital. He, usually a doctor, himself would build a hospital. Another doctor would organize a movement in the direction of building a hospital for himself or another group, and another hospital would be built. The best lot that was available was usually right across the street from where the first hospital was built.

In some communities we began having hospitals built primarily with a racial or national background. One may go into some areas in the city of Chicago or New York or

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Philadelphia or any of our large cities and find in one area, a few miles square, hospitals devoted to the Swedish, Spanish, French, Porto Ricans, Portuguese. We have hospitals for Catholics, for the Reformed Jews and Orthodox Jews, because of the dietary habits having some differences. We have hospitals for the individual Protestant groups. We have combinations like the Swedish Lutheran hospitals and the Swedish Evangelical hospitals.

In addition, we began having hospitals for various trades and businesses. In New York they have been contemplating a large printers' hospital. In Chicago, we had at one time a hospital exclusively for prostitutes. But some reform has come about with the Democratic administration.

As we go further into the picture we have the strange situation associated with the rise of specialists in the field of medical practice. After partitioning off human beings in the gross according to religion and nationality and race and color, there comes the question of partitioning human beings according to the portions that are ailing.

First we had maternity or obstetric hospitals, but that being a rather confined section of medical practice, we worked out to eye and ear hospitals. Then they took the ear away from the eye and we have the eye hospital by itself. We have in other sections of the country hospitals devoted to children, to dermatology, to venereal diseases, and various other complaints, hospitals for neurologic surgery exclusively, and to various sorts of special practice.

Unguided Development

Now this is not an exceedingly efficient form of development of hospitals economically. Some years ago there was a cry throughout the country that there were not enough hospitals. We have begun to think there are enough hospitals but that they are in the wrong places. Altogether the increase in hospitals has not been an efficient economic development. If anybody had been far-sighted enough either in the field of medicine or in the field of social work or in the field of statesmanship to look ahead and make some definite plans in relationship to hospital growth in this country, conditions would have been better.

Today many institutions are being built with easy government money. One such hospital cost eight million dollars for 625 beds. Figure out how much per bed it cost to put up that hospital. There was a time when a fairly good bed could be put in a hospital for $1,000, so that a one hundred bed hospital would cost $100,000. If hospitals have an average cost from twelve to fifteen thousand dollars per bed, few can inhabit the beds in the hospitals and pay the cost of their inhabitancy of those luxurious surroundings.

There are many materials about hospitals which a patient does not necessarily have to have in order to get what we call good medical care. A man who spends most of his time attending a baseball game when he has a few moments of leisure and sitting on the doorstep at night talking to the fellows in the neighborhood does not have to have a radio and bowl of flowers and a refrigerator and utensils in the washroom with five different kinds of enamel to recover from a disturbance in the gallbladder or stone in the kidney. It does not matter much whether the utensil is blue or green when he has a stone in the kidney.

We have hospitals in which the corridors are fifteen feet wide presumably to keep the interns from crowding the nurses. The door knobs in one hospital cost thirty-five dollars per door knob. You hardly dare to open a door in that institution.

The building of hospitals on plans dictated largely by architects, interior decorators and politicians has resulted in conditions which should not have developed in a field in which physicians primarily were concerned. But physicians were not as concerned as they should have been with the development of hospitals in an earlier day. The physician looked on the hospital as a gift to him by the community. It was his workshop. The community boasted that the doctors were the only class in the community for which the community provided a workshop. Everybody else had to put up his own workshop and provide the apparatus but the com-

munity provided the workshop for the doctor. Remember, however, that a hospital is just four walls and a lot of apparatus and furniture. It is not until the doctor comes into the hospital that it becomes a place for the healing of the sick. When a person is acutely sick, he does not go to the hospital because it has just been equipped with some nice net curtains. He goes to a hospital for a doctor who can tell acute appendicitis when he sees it, and knows what to do about it as soon as possible.

As times have changed, our government has entered more and more into the construction of hospitals for various purposes. Many have failed to realize the extent to which governments have entered into hospital construction. The hospitals of the United States can be divided roughly into three groups: the government hospitals; those hospitals which are maintained by non-profit or philanthropic organizations and the third group representing the proprietary hospitals, or those owned by private individuals or groups of individuals for pecuniary profit. The reduction in the total number of hospitals in the United States that has taken place during the period called the depression, has come largely among the proprietary hospitals.

In Wisconsin

In the State of Wisconsin, you have at the present time three federal hospitals with 1,391 beds, thirteen state hospitals with 16,019 beds, eight state hospitals of another kind with 589 beds, sixty county hospitals with 12,528 beds, one combined county and city hospital with 386 beds, making a total of eighty-five hospitals with 20,565 beds and 206 bassinets, which are essentially in the business of governmental practice of medicine. That is to say they take care of the indigent, the insane, the tuberculous, all sorts of wards of the State and in some instances, no doubt, people who are not necessarily wards of the State.

There are also ninety-three non-profit hospitals with 8,245 beds and 1,322 bassinets. You notice the non-profit hospitals have 1,322 bassinets in contrast to only 208 bassinets in the state or government hospitals.

Then you also have in the State of Wisconsin forty-seven proprietary hospitals with 1,256 beds and 188 bassinets. In contrast to that, in the United States as a whole we now have, as I said, 6,246 hospitals compared to 6,400 hospitals in 1935, approximately one million beds available for the acutely sick and fifty-three thousand bassinets available for what goes in bassinets.

Today the non-profit organizations in the field of medical care, these great institutions built primarily to take care of the acutely sick, for those able to pay and, at the same time, to take care of a great many unable to pay, the Protestant hospitals and Presbyterian hospitals, built by private citizens out of their own funds in order to provide for their own medical needs, are threatened as to their entire existence. More and more government is entering into the hospital care of the sick.

Hospitals today are having an average of twenty per cent of their beds unoccupied largely because the patients who might go there have drifted to state institutions. The hospital has come to be more and more a part of medical life. In the United States we have around 135,000 physicians in the active practice of medicine. Of the 135,000 physicians, 100,000 are directly affiliated with these hospitals and take their patients to the hospitals for the type of medical care they provide.

There are many reasons why patients go to hospitals and why doctors send patients to hospitals. No doubt, there are many good reasons why doctors do not send patients to hospitals or should not send them as often as they do. When a patient goes to a hospital and begins complaining of the smells in the corridor or the noise that goes on around the hospital continually or because some nurse was not available when he pushed the button, it is always the doctor who takes the blame. If the patient happens to be ill at home, it is the mother-in-law, sister or whoever is in charge of the case who takes the blame.

One reason why doctors in the large cities are sending their patients more and more to hospitals is because it is inconvenient in most large cities to be sick at home. In

New York, the average family in 1910 had five rooms to a family. By 1920, that dropped to four rooms to a family. In 1935, there are less than three rooms to a family in the city of New York. There are certain illnesses like inflammatory rheumatism or ozena with which one cannot suffer satisfactorily in a two-room kitchenette.

A hospital is exceedingly convenient for obstetrical care, although I am convinced, from the study of statistics of morbidity and mortality, that more home care of obstetrics under proper auspices would lower the morbidity and mortality in that field. I believe that is confirmed by studies in Cleveland, Philadelphia, New York and other places where scientific bodies of physicians have made a careful study of obstetrical statistics. In the field of obstetrics, of course, the man who has morbidity or mortality has it for one or two reasons which have been mentioned from time to time to medical audiences. One reason why he has mortality and morbidity is infection, and in a hospital there is opportunity for more kinds of infection than the patient is likely to come in contact with in her own home. The other reason, of course, is the thing that has been characterized by some of the leaders in the obstetrical field as meddlesome obstetrics.

The rise of the hospitals has been primarily associated with the rise of specialization and the need of specialists for various types of apparatus. In 1875 we did not have in the hospitals of the United States the available clinical laboratory facilities we have in the hospitals today. Out of 6,234 hospitals in the United States today we have more than 4,600 fully equipped with complete laboratory facilities. It has been argued from time to time that by this we have replaced brains with glassware and that more and more physicians are making their diagnosis and controlling their cases through the results that are developed in these laboratories, in the hands frequently of laboratory technicians, rather than applying first that brain power for which the medical profession was noted in 1898. Roentgen made his discovery of the roentgen ray only in 1898. Today in the 6,234 hospitals of the United States we have more than 5,000 adequately equipped with x-ray facilities for aid in making diagnosis and also to some extent for therapeutic application of x-ray.

Moreover, we have approximately 3,400 hospitals which have nurses training schools. I am not going to go into the story of the development of nurses training schools or what that has meant for medical education or the practice of medicine in the United States. I would merely like to point out, as I sometimes do to an audience of this kind that in 1890, 300 nurses graduated from the nurses training schools, about 4,200 doctors from the medical schools. The average now is about 4,500 doctors graduating from the medical schools and 25,000 nurses from the nurses training schools. It is simply impossible for 4,500 doctors to marry 25,000 nurses. In the hospitals of the United States there are employed as full time employes 500,000 people. Actually in the entire practice of medicine there are 1,250,000 people giving their full time to the care of the sick. The social service workers, amateur and professional, running from 100,000 to 300,000 in number, are running most of the time and trying to run medical practice. They have greatly concerned themselves with the problem of medical care.

Payment Plans

You have heard much about strange plans for permitting the public to pay adequately for medical and hospital care. Fortunately, in the state of Wisconsin you have a decision from your legal authority indicating that partial payment plans or pre-payment plans for medical care constitute insurance and, therefore, come under the insurance laws of the state. Even in Wisconsin, however, laws are changed occasionally. It will be necessary for you to keep your eyes on all these matters and for George Crownhart to keep all four of his eyes on them.

There has been much mystery attached to the question of how the public is going to pay for hospital and medical care when actually payment is the simplest part, provided you want to pay. If you really want to pay for something, there are three ways in which you can do so. You can pay cash, which is a lost art. The archeologists are out excavat-

ing and hoping they can find somebody who still pays cash but it looks hopeless. Also you can pay by what is known as the installment system, a miraculous system. You fill your house with furniture and a great many other things you do not need and stall off the collectors as long as possible. That has become the favorite American system, due largely to installment buying and the advertising for promoting. But there is a difference between buying a vacuum cleaner or piano or frigidaire or any of the other so-called luxurious necessities and getting a baby or having an operation for appendicitis. They cannot put back the appendix if you quit making the payments. No one yet has found any way of attaching a baby in order to get the rest of the installments. You probably would not want the baby if you could attach it. I am not yet convinced that installment payments are ever going to work satisfactorily as the payment for medical catastrophes. It is the medical catastrophe, the surgical operation and the baby that constitute the chief problem in most American households from the point of view of payment.

The other is the pre-payment plan. The difficulty with the pre-payment plan is the fact that it is essentially insurance. Once you set up a system of insurance for hospital care and medical care in advance, you come into the system of voluntary sickness insurance and every sociologist who has surveyed the subject knows sooner or later every system of voluntary insurance changes to a system of compulsory insurance.

It is interesting to compare the problem as it concerns us in this country with what is going on in Great Britain. A report made to the British Medical Association by the voluntary hospital commission having to do with the plight of the so-called voluntary hospitals in Great Britain is of particular interest. The voluntary hospitals in Great Britain are that group of hospitals which in the United States constitute our most important hospitals so far as concerns the taking care of illness among the vast majority of the middle class of our population.

Today in Great Britain, following the development of the panel system, the voluntary hospitals find themselves in an exceedingly difficult situation. The doctors associated with the voluntary hospitals find themselves in an even more difficult situation. Under the panel system, doctors take care of patients only for the ordinary illness which can be taken care of in the doctor's office or patient's home. As soon as an illness develops that requires hospitalization, the same panel patients go upon charity. When they go upon charity, they go to the voluntary hospitals, where the hospital takes care of them for nothing out of its philanthropic fund, and the doctors work on these patients without payment of fee of any kind. The result is the doctors associated with the voluntary hospitals have been so completely overburdened with patients of the panel who might in the olden times pay something to the hospital or doctor, and the hospitals find themselves with the financial depression and the panel system on top in a situation that means for many of them complete bankruptcy, notwithstanding twenty-five or fifty years of service for most of them.

The situation was so difficult that the Voluntary Hospital Commission of the British Medical Association has made a report that some means must be found for the government actually to pay the voluntary hospitals and the doctors who give service in the voluntary hospitals adequate sums of money for the services they render so that these institutions and the doctor associated with the institutions may continue to live. Unless they do, the British medical profession finds it is not developing the specialist group it must have to take care of the consultations and difficult phases of medical practice.

We have said again and again that these systems break down initiative. To take care of the lower third in quality of your medical profession to the detriment of your higher two thirds is completely contrary to the American plan. More and more as we look over the situation, we find evidence accumulating to show that the American medical profession, through its established organizations, has planned wisely, continues to plan wisely to maintain for this country the highest quality of medical service available anywhere in the world. It is through organiza-

tions like yours, meetings of the type you have scheduled, and the kind of enthusiasm you are manifesting toward your medical organization that we are going to be able to continue to maintain a successful battle against those who would degrade medical practice into the kind of servitude in which it finds itself already in many places abroad.

One Hundred Twenty-Nine Licensed by State Board at July and September Meetings

By Reciprocity

Name	*School of Graduation*	*Year*	*Present Address*
Anderson, Wm. McKinnon	Northwestern	1930	Union Grove
Bard, George I.	Illinois	1935	Cook County Hospital, Chicago, Ill.
Benson, Clifton E.	Minnesota	1933	Gundersen Clinic, La Crosse
Blank, Henry	Chicago	1929	3376 N. Buffum, Milwaukee
Cairns, Rob't J.	Minnesota	1933	Box 425, Burlington
Carey, Harold Wm.	Loyola	1931	Cassville
Cowan, Irving I.	Vanderbilt	1931	908 N. 12th St., Milwaukee
Darby, Russel C.	College of Med. Evangelists	1934	Arpin
DeHollander, Wm.	Michigan	1930	840 S. Webster St., Green Bay
Dubiel, Charles R.	Northwestern	1929	305 S. Main St., Rockford, Illinois
Dvorak-Fisher, Laura	Temple	1931	4718 W. Lisbon Ave., Milwaukee
Ford, John Leonard	Maryland	1930	St. Vincent's Hospital, Green Bay
Goldman, Milton	U. of Chicago	1934	1735 N. 21st St., Milwaukee
Kaufman, Albert R.	Pennsylvania	1923	Mauston
Lang, Valorus F.	Northwestern	1930	208 E. Wis. Ave., Milwaukee
Malinowski, Henry V.	Loyola	1934	2143 W. Chicago Ave., Chicago, Ill.
Morton, John H.	Wisconsin	1934	Wisconsin Gen. Hospital, Madison
Nereim, Theo. J.	Illinois	1933	DeWitt, Iowa
Schroeder, Charles M.	Wisconsin	1933	1413 College Avenue, Racine
Shaner, George Oliver	Nebraska	1934	3321 N. Maryland Ave., Milwaukee
Simons, Harold	Loyola	1929	2046 LeMoyne St., Chicago, Illinois
Taylor, Ivan B.	Michigan	1932	Wis. Gen. Hospital, Madison
Trombley, Rob't. B.	Minnesota	1930	Children's Hospital, Milwaukee
Waldman, Irwin J.	Illinois	1934	208 E. Wisconsin Ave., Milwaukee
Wolfe, Humphrey D.	Maryland P & S	1916	Dye Works Hosp., Pennsgrove, N. J.
Wolfson, Albert A.	Rush	1933	Camp Newald, Cavour
Zintek, Arthur R.	Marquette	1934	407 E. Bay St., Milwaukee
Fox, James C.	Loyola	1932	Sparta
Hatfield, Margaret E.	Wisconsin	1927	1820 Van Hise Avenue, Madison
Klepfer, Jeffson F.	Indiana	1930	1445 S. 32nd Street, Milwaukee
Lightner, Charles M.	Michigan	1932	42 Breese Terrace, Madison
McGreane, Norbert	Louisville	1934	Viroqua
Nash, Leo A.	Minnesota	1935	River Falls
Russell, Sidney B.	Minnesota	1930	1122 State Street, Eau Claire
Tucker, Irenaeus N.	Tulane	1915	% J. I. Case Co., Racine
Turney, Stephan T.	Ohio	1931	Barberton, Ohio
Van de Grift, Jas. J. (D.O.)	Chicago Coll. of Osteopathy	1933	1525 E. 53rd Street, Chicago, Illinois

By Examination

Ackerman, Eugene J.	Marquette	1936	917 Packard Avenue, Cudahy
Adrians, Wilbert A.	Wisconsin	1935	403 W. Walnut St., Green Bay
Axel, Ben John	Wisconsin	1935	Hilbert
Baer, Albert	Univ. of Würzburg	1922	Strauss Bldg., Milwaukee
Berk, Harold	Marquette	1936	2555 N. 40th St., Milwaukee
Bickel, Wm. Harold	Northwestern	1935	Milwaukee Sanitarium, Wauwatosa
Britton, Donald M.	Chicago	1935	Quisling Clinic, Madison
Brizard, Joseph L.	Tulane	1935	1821 W. Wis. Avenue, Milwaukee
Caldwell, Esther	Wisconsin	1935	Hurley Hospital, Flint, Michigan
Calvy, Donald M.	Marquette	1936	248 Elm Street, Fond du Lac
Canty, Thomas John	Marquette	1936	3919 N. Morris Blvd., Milwaukee
Coffey, Francis Louis	Marquette	1936	R.R. No. 1, Kaukauna
Cohen, Joseph Robert	Rush	1935	2423 N. 16th Street, Milwaukee
Connell, Jane Stickney	Northwestern	1934	420 Washington Blvd., Oshkosh
Dainko, Alfred Joseph	Marquette	1936	854 N. 14th Street, Milwaukee
Davies, Evan B.	Northwestern	1935	Pardeeville
Dernbach, George Peter	Marquette	1936	Milw. Co. Hosp., Wauwatosa
Dix, Christopher R.	Wisconsin	1935	Milwaukee Hospital, Milwaukee

Name	*School of Graduation*	*Year*	*Present Address*
Dockery, Gordon Ambrose	Rush	1936	1019 Milw. Ave., So. Milwaukee
Edwards, Stanley R.	Wisconsin	1935	Wisconsin Gen. Hospital, Madison
End, Egar Matthew	Marquette	1936	7505 W. Garfield Ave., Wauwatosa
Eppley, James Edward	Marquette	1936	Princeton
Epstein, Stephan E.	Friedrich-Wilhelms	1923	309 E. 4th Street, Marshfield
Fesenmaier, Otto B.	Marquette	1936	2327 S. 8th Street, Milwaukee
Grauman, Samuel J.	Rush	1936	2700 E. Menlo Blvd., Milwaukee
Grinde, John M.	Wisconsin	1935	De Forest
Grossman, Erwin E.	Wisconsin	1935	2357 N. 11th Street, Milwaukee
Gueldner, Louis H.	Marquette	1936	% Mercy Hospital, Sogan, W. Va.
Guepe, John Wm.	Marquette	1936	1314 W. Clarke St., Milwaukee
Gunderson, Rob't. H.	Wisconsin	1935	Milwaukee Co. Hospital, Wauwatosa
Hamilton, Wm. P.	Marquette	1936	Dodgeville
Hannan, Kenneth D. L.	Wisconsin	1935	231 S. Jefferson St., Green Bay
Hardin, Parker Calhoun	Harvard	1927	Ephraim
Hartridge, Theodore L.	Pennsylvania	1934	Oconomowoc
Heller, Theodore A.	Wisconsin	1935	Cumberland
Hollenbeck, Stanley Wm.	Marquette	1936	2774 N. Sherman Blvd., Milwaukee
Howe, Edwin George	Marquette	1936	Lynxville
Hunkel, Victor Henry	Illinois	1935	2324 W. Wisconsin Ave., Milwaukee
Ihle, Charles M.	Wisconsin	1935	Chippewa Falls
Jacobson, Ferdinand C.	Rush	1934	Washburn
James, Wm. D.	Wisconsin	1935	Milwaukee Co. Hospital, Wauwatosa
Johnson, John W.	Coll. of Med. Evangelists	1934	Oxford
Karr, John Kenneth	Marquette	1936	Elkhorn
Kelleher, Edward J.	Marquette	1936	2806 N. 68th Street, Milwaukee
Kelm, George James	Marquette	1936	Hales Corners
Kolb, Frederick E.	Northwestern	1936	Sheboygan Mem. Hosp., Sheboygan
Komasinski, Van Walter	Loyola	1936	Elcho
Kores, Vernon	Marquette	1936	1611 N. 60th Street, Milwaukee
Kovacic, Joseph Frank	Marquette	1936	308 W. North Ave., Milwaukee
Krumbiegel, Edward	Marquette	1936	1315 S. 14th Street, Milwaukee
Kunde, Emerson Charles	Illinois	1935	441 Center Street, Woodstock, Illinois
Langmack, Wm. August	Wisconsin	1935	Darien
Lentz, Rob't. J.	Loyola	1936	Ashippun
Lund, Curtis Joseph	Wisconsin	1935	Wisconsin General Hospital, Madison
Lustok, Mischa J.	Wisconsin	1936	1021 S. 16th St., Milwaukee
Markson, Leonard S.	Marquette	1936	Cincinnati Gen. Hosp., Cincinnati, O.
Martin, Stevens John	Wisconsin	1935	383 Myrtle Ave., Albany, N. Y.
Milhaput, Emmett Norbert	Wisconsin	1935	Sparta
Moland, Oscar Gerhard	Wisconsin	1935	1223 Lee Court, Madison
Morrison, Ira Rob't.	Illinois	1935	Crandon
Nieman, Theodore V.	Marquette	1936	1009 S. 72nd Street, West Allis
Nimz, Rob't. A.	Marquette	1936	1308 S. 74th Street, West Allis
Nissenbaum, James	Marquette	1936	114 W. College Ave., Appleton
Nosik, Wm. Andre	Wisconsin	1935	3003 N. 36th Street, Milwaukee
Overman, Meric V.	Wisconsin	1935	Granton
Pelkey, Ralph B.	Wisconsin	1935	Coleman
Peterson, Milton Carl	Wisconsin	1935	Bellevue Hospital, New York City
Picard, Charles James	Marquette	1936	Skanee, Michigan
Picotte, Lyman W.	Marquette	1936	Milwaukee Co. Hospital, Wauwatosa
Polacheck, Walter S.	Rush	1935	808 N. Plankington Ave., Milwaukee
Posner, Sidney	Wisconsin	1936	2728 N. 51st Street, Milwaukee
Prudowsky, Harry	Marquette	1936	1509 W. Fond du Lac Ave., Milwaukee
Reuter, Rob't. John	Marquette	1936	3066 S. Wentworth Ave., Milwaukee
Ross, Fordyce A.	Marquette	1936	1848 Mountain Avenue, Wauwatosa
Sala, Joseph J.	Marquette	1936	Box B, Wauwatosa
Schenkenberg, Grace E.	Marquette	1936	941 LaSalle Street, Racine
Schuler, Frank X.	Marquette	1936	4425 W. National Avenue, Milwaukee
Schwade, Leonard J.	Illinois	1935	Milwaukee Co. Hospital, Wauwatosa
Schwartz, Saul F.	Marquette	1936	1802 N. 12th Street, Milwaukee
Sorkin, Samuel Sima	Northwestern	1934	St. Mary's Hospital, Madison
Stone, Grant C.	Wisconsin	1935	Crandon
Strand, Clarence M.	Louisville	1935	Wyalusing
Stricker, Marvin F.	Wisconsin	1935	Middleton
Strong, Wm. Francis	Marquette	1936	1930 N. 36th St., Milwaukee
Super, Julia	Marquette	1936	106 Morningside Dr., New York City
Thanos, John N.	Marquette	1936	1122 N. 12th Street, Milwaukee
Thompson, Richard Daniel	Marquette	1936	905 S. 35th St., Milwaukee
Uszler, Louis B.	Marquette	1936	2327 S. 8th St., Milwaukee
Vieaux, Julius W.	Washington	1935	714 S. Webster Avenue, Green Bay
Weisfeldt, Simon C.	Marquette	1936	748 N. 34th Street, Milwaukee
Weinstein, Selig B.	Rush	1936	937 W. Garfield Ave., Milwaukee
Wolf, Frederick H.	Northwestern	1936	324 S. 10th Street, La Crosse

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No Legal Liability to Furnish Chiropractic Treatment to Indigent; Rules Milwaukee County Counsel

REPUDIATING a prior opinion by Attorney General J. E. Finnegan, as published in the last issue of this Journal, Corporation Counsel Oliver L. O'Boyle of Milwaukee County, on October 5, held that there was no legal liability to furnish chiropractic treatment for the care of the indigent sick. Counsel O'Boyle's opinion declared that poor relief clients should not be permitted to choose between the services of a physician and those of a chiropractor, and that if chiropractors desired such privileges they must apply for specific legislation. The opinion given to the Joint Committee on Judiciary and County Institutions, of the Milwaukee County Board of Supervisors, follows:

October 5, 1936.

Joint Committee on Judiciary and County Institutions,

Milwaukee County Board of Supervisors,

Courthouse, Milwaukee.

Gentlemen: Sometime ago your joint committee referred to this office for opinion the question as to whether or not the County might legally give chiropractic treatment, as well as medical treatment, to persons on relief. We believe that this is a matter that should properly, in the first instance, have come up before the Board of Trustees and Manager of County Institutions, since it is a question that is primarily within their jurisdiction to determine, rather than that of the committee. However, since the same question would doubtless be referred to us for opinion by the Board of Trustees and is one that has stirred up quite a controversy and, therefore, should be determined without unnecessary delay, we herewith submit our best judgment in the matter.

The reason for the delay on the part of this office in rendering the within opinion is that we desired to give all interested parties full opportunity to be heard and to present briefs in support of their respective positions. This has been done, both by attorneys for the chiropractors and by attorneys representing the State Medical Society.

The question is not free from difficulty and there still remains considerable confusion insofar as the decisions of our own Supreme Court are concerned. The entire matter hinges around the definition of the term "medical" as it appears in R.S. 49.18 of the statutes relating to relief of the poor.

The leading Wisconsin case, cited by both sides as supporting their contention, is that of *Corsten vs Industrial Commission, 207 Wis. 147.* In that case claim was filed with the Industrial Commission for reimbursement for fees paid to a chiropractor by an injured person entitled to compensation under the Workmen's Compensation Act.

The court in that case held that while chiropractic treatment is medical treatment under the provisions of Chapter 147 of the statutes relating to the licensing of chiropractors, the chiropractic treatment was not medical treatment as contemplated by the provisions of the Workmen's Compensation Act.

It would be useless to include in this opinion that numerous citations of authority, both for and against the proposition that chiropractic treatment should be considered as included within the term "medical treatment" as contained in the Poor Relief Laws. Briefs on the subject are on file in our office and reference may be had thereto.

Our conclusion is that if in any particular instance the Manager and Board of Trustees are of the opinion that chiropractic treatment will tend to relieve sickness or suffering on the part of any Outdoor Relief client, which result could not be attained by the treatment of a physicians or surgeon, then in those cases the County may legally stand the expense of chiropractic treatment.

It is not our belief, however, that Poor Relief clients should be permitted to choose between the services of a physician and those of a chiropractor and determine which they desire to receive. We believe that this privilege is one that can only be given by specific legislation, as was given in the enactment of Section 102.09 Statutes 1927 in the Workmen's Compensation Act, where the injured person was given the option of electing to take Christian Science treatment in lieu of medical treatment. Until such specific legislation is had, we are of the opinion that the only positive legal liability on the part of the County is to furnish medical and surgical treatment as the terms are customarily understood, that is at the hands of duly licensed physicians and surgeons.

As stated above, however, while liability to furnish such treatment does not, in our opinion, exist, the County may in specific instances, where it believes that good will result therefrom, legally assume the expense of chiropractic treatment.

Respectfully submitted,

OLIVER L. O'BOYLE,

Corporation Counsel.

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BOOKS RECEIVED FOR REVIEW

A Textbook of Pharmacology and Therapeutics. By Arthur R. Cushny, M.D., late professor of materia medica and pharmacology, University of Edinburgh, and C. W. Edmunds, M.D., professor of materia medica and therapeutics and director of the pharmacological laboratories, University of Michigan, and J. A. Gunn, M.D., professor of pharmacology and director of the Nuffield Institute for medical research, University of Oxford, Oxford, England. Eleventh edition, revised. Lea & Febiger, Philadelphia, 1936. Price $6.50.

A Textbook of Obstetrics. By Edward A. Schumann, M.D., professor of obstetrics, school of medicine, University of Pennsylvania, surgeon-in-chief, Kensington Hospital for Women. W. B. Saunders Company, 1936. Cloth $6.50.

Modern Treatment of Diseases of the Respiratory System. By A. Lisle Punch, M.B., senior physician, Royal Northern Hospital, and F. A. Knott, M.D., director of bacteriological department and lecturer in bacteriology to medical and dental schools, Guy's Hospital. P. Blakiston's Son & Co., Inc., Philadelphia, 1936. Price $5.00.

Healthy Bodies. The Healthy Life Series. Grade 3. By John Guy Fowlkes, professor of education, University of Wisconsin, and Lora Z. Jackson, associate librarian, Jackson Clinic, Madison, Wisconsin, and Arnold S. Jackson, M.D., Jackson Clinic, Madison, Wisconsin. John C. Winston Company, 1936. Price 64 cents.

Healthy Growing. The Healthy Life Series. Grade 4. By John Guy Fowlkes, professor of education, University of Wisconsin, and Lora Z. Jackson, associate librarian, Jackson Clinic, Madison, Wisconsin, and Arnold S. Jackson, M.D., Jackson Clinic, Madison, Wisconsin. John C. Winston Company, 1936. Price 64 cents.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

Physician, Pastor and Patient. By George W. Jacoby, M. D., past president of the American Neurological Association and the New York Neurological Society. Paul B. Hoeber, Inc., New York, 1936. Price $3.50.

This book covers the entire relationship between physician, pastor and patient. It not only discusses the present problem from its many angles, but also discusses the origin and motivating factors of the various religions of the world today.

Because of its completeness in covering all of the many angles of this relationship, it cannot serve as a textbook for the student who wishes to explore the various causative factors that have tended through the ages to bind religion and medicine together. It can, however, be used as a ready handbook for the physician who wishes material in the preparation of lay papers or it can be recommended to the layman who is interested in this broad subject.

The author stresses the need for further cooperation in religious and medical service and makes plain the unlimited opportunities for a better understanding and a closer cooperation in solving the vital problems confronting Mankind today. R. C. B.

A Preface to Nervous Disease. By Stanley Cobb, M. D., psychiatrist in chief, Massachusetts General Hospital. William Wood and Company, Baltimore, 1936. Price $2.50.

Cobb has made a commendable effort to orient the student in a three dimentional manner to the nervous system. In a book of 170 pages of very pleasant reading, he has evolved the general well-established principles of the normal structure and function and the pathological changes due to disease. He has avoided detailed discussions, confining himself to "simple mechanisms" and as he says "little more than these is understood, and even some of these are controversial."

Neuroanatomy and neurophysiology always have been the bête noire of the student in his early medical studies. He comes to clinical neuropsychiatry disinterested, often with a real aversion, the result of his floundering in a morass of fiber pathways, endless synapses and centers whose boundaries are still a mystery to anatomists themselves. Thus he misses the fascination and satisfaction of correlating disease entities with distorted function of anatomical structures. The study becomes a laborious process of learning symptoms and findings of certain clinical syndromes, and when a problem presents itself which doesn't fit into the few syndromes he may memorize he is in a quandary. Dr. Cobb appreciates the problems of the student,—thus his efforts at simplification and orientation. The student should be required to read this volume during his course in neuroanatomy.

To all interested in general problems in the field of neuropsychiatry, I recommend most heartily the reading of this volume, particularly the chapters devoted to: The Autonomic Nervous System; Segmental, and Suprasegmental Aspects of the Central Nervous System; Motor Integration and Locomotion and Functional Localization in the Cerebral Cortex. These topics are taken up in the first four chapters. Having read thus far into the volume, the reader will doubtless continue to the end. M. G. M.

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Arthritis and Rheumatic Disease. By Maurice F. Lautman, M. D., consultant to the United States Public Health Service Clinic and director of the department for the study of arthritis. Whittlessey House, McGraw-Hill Book Company, New York, 1936. Price $2.00.

This book has been written for the layman and there is discussed in readable lay terms the various aspects of arthritis. These include discussions of nature, symptoms, and various therapeutic measures of the disease. The classification of arthritis and the discussion of focal infection are particularly intelligible. In the reviewer's estimation this work is useful for patients with arthritis because of its clarity and optimistic viewpoint. There is little that will be new to the physician, but certainly the physician can recommend it to his arthritic patients with assurance that it will be helpful to them in understanding their condition. O. O. M.

An Introduction to Materia Medica and Pharmacology. By Hugh Alister McGuigan, M. D., professor of materia medica, pharmacology and therapeutics, University of Illinois, College of Medicine, Chicago. C. V. Mosby Company, St. Louis, 1936. Price $2.75.

This textbook for nurses has been written with the same clarity and simplicity which has characterized previous editorial efforts of the senior author.

The volume contains a large quantity of practical information, including a chapter on poisons and their antidotes, a rather extensive appendix, and a glossary of common medical terms. It should be of value not only as a text but as a reference handbook.

In the opinion of the reviewer, more space is devoted to discussion and illustration of the point of action of drugs from the laboratory standpoint than is desirable in a text unless it is also to be utilized as a laboratory handbook. M.H.S.

A Textbook of Neuro-Anatomy. By Albert Kuntz, M. D., professor of micro-anatomy in St. Louis University School of Medicine, St. Louis. Second edition, thoroughly revised. Lea & Febiger, Philadelphia, 1936. Price $6.00.

The second edition of this textbook represents a very thorough revision of its predecessor, some rearrangement of subject matter, and the inclusion of much additional material, the size of the book having been increased from 359 to 519 pages. The number of engravings has been increased from 197 to 307. Many of the unsatisfactory illustrations of the previous edition have been replaced by reproductions of well-executed drawings, specifically the photomicrographs of sections of the brain stem. Each chapter is concluded with a summary of the main points presented. In general, the usefulness of the book has been greatly improved.

The content of the first chapter, which treats of the essential features of the evolution and comparative anatomy of the nervous system, is an addition. In it the brain of the dogfish is used to illustrate the primitive type of vertebrate brain as it is most convenient and satisfactory for the purpose. In the opinion of the reviewer, the inclusion of a brief presentation of the correlation of function with pure morphology would be highly desirable because of its fundamental importance as a background for obtaining an intelligent understanding of the development, evolution, and functional arrangement of the structures of the human brain, as Herrick does in his Neurological Foundations of Animal Behavior.

The statement on page 83 that "The evidence available also fails to support the view that cerebrospinal fluid is absorbed into the lymphatics" disregards the published results of the studies of Mortensen and Sullivan (1933) which demonstrate that brominol and thorotrast, when introduced into the subarachnoid space of the dog by cisternal puncture, pass into the cervical lymph nodes.

In chapter IX the author emphasizes the functional aspect as the basis of classification of the components of the cerebrospinal nerves rather than the embryological. This difficulty is manifest in several places. The statement (page 145) "The muscles derived from the branchial arches are histologically and functionally similar to other voluntary muscles" is not clarified, relative to the nerve component supplying them, until page 249 is reached. On page 232 the glossopharyngeal nerve is stated to include fibers which conduct exteroceptive impulses from the posterior third of the tongue and that these fibers probably join the trigemino-spinal tract. The usual conception is that this component is general visceral afferent and joins the solitary tract with the other general and special visceral afferent fibers. The olfactory nerve, supplying the olfactory epithelium, which is somatic in origin, is placed in the visceral group of components. The component common to cranial nerves III, IV, VI, and XII is given as general somatic efferent rather than special somatic efferent.

Occasional errors are evident in some of the illustrations; these errors, however, are rectified in the text. Figure 132 shows fibers of the fasciculus cuneatus in the lumbar region of the spinal cord. In figure 135 the anterior cortico-spinal tract is shown descending into the lumbar region.

The sections on the cerebral hemisphere and cerebral cortex are extensively and well done. It would seem, however, that in a discussion of cortical function of the frontal lobe the experimental and clinical observations of Bailey, Bucy, Fulton and Viets should merit consideration. F.D.G.

The Technique of Contraception. By E. M. Matsner, M. D., medical director, American Birth Control League; R. L. Dickinson, M. D., chairman, executive committee, National Committee on Maternal Health; Foster Kennedy, M. D., professor neurology, Cornell University Medical College. Third edition. Price fifty cents.

This outline covers the subject thoroughly and in a most comprehensive manner. I recommend this

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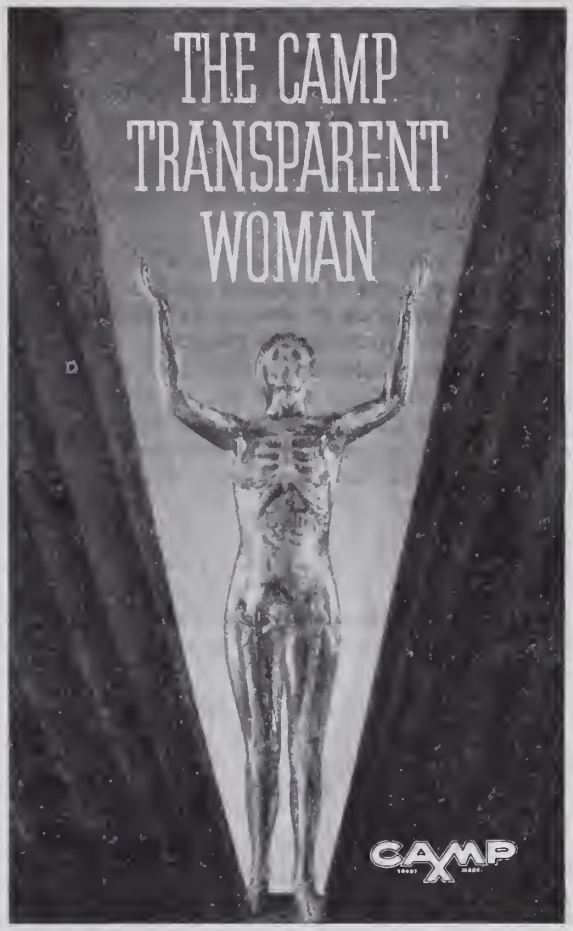

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outline to all those interested in the technique of contraception as I feel it is one of the best that has been published. R. E. C.

New and Nonofficial Remedies, 1936. American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

The 1936 edition of New and Nonofficial Remedies conforms in purpose and general content to previous editions. Acceptance of articles by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in this book is based in part on investigations made by, or under the direction of, the Council and in part on evidence or information supplied by the manufacturer. The latter must submit data concerning the source, composition, identity and purity of the drug, as well as evidence concerning its pharmacological action and proven clinical value. Each compound must be properly branded and advertised only to the profession. Unwarranted or misleading claims as to the therapeutic value of a substance preclude its admission.

A considerable revision has been made to bring the book into conformity with the U.S.P. XI and the National Formulary VI, both of which became official June 1, 1936. M.H.S.

Exophthalmic Goiter and Its Medical Treatment. By Israel Bram, M. D., medical director, Bram Institute for the treatment of goiter, Upland, Pa. C. V. Mosby Company, St. Louis, 1936. Price $6.00. Second edition, completely revised and enlarged.

This book, although a second edition, must be considered as a new and extensive treatise on exophthalmic goiter. It is unique in that the disease is considered as a medical problem only, never amenable to surgical interference. It is convincing, for the author has drawn not only on his own experience with over 5,000 cases in a lifetime period of over twenty-five years, but also he has drawn most extensively upon a voluminous literature to clarify, illustrate and substantiate his points.

So long as the etiology and mechanism of development of Graves' disease are not known, controversy as to its treatment must continue. Surgery at best is only palliative and constitutes an attack on but one phase of the condition. It is not rational therapy, however necessary it may seem to be to most of us as a means of palliation.

The results of medical treatment on the other hand as reported by Bram are most encouraging. It is his opinion that psychic trauma is the apparent exciting factor in all but three per cent of the cases. He emphasizes, therefore, the primary role which psychotherapy must play in conjunction with proper environment, rest, the maintenance of nutrition, and careful medication.

In the diagnosis of hyperthyroidism attention should be directed to the "Bram Quinine Test." In his studies with 4,000 cases there was an increased tolerance to quinine in 95+%, and the increase in tolerance was in direct proportion to the increase in the B.M.R. So dependable is this test that he attaches the same value to it as the B.M.R. It has the additional advantage of requiring no apparatus. As a therapeutic agent, quinine, he feels, is the most important of all drugs.

Obviously most clinicians will not accept the teachings of Bram in their entirety. They are deserving, however, of thoughtful consideration more by the surgeon than by the internist. K.L.P.

VAGINA AND UTERUS

(Continued from page 895)

Physical Examination: Reveals a well developed, well nourished white female, 5 ft. 4 in. (162.5 cm.) in height, weighing 138 pounds (62.75 kg.). Breasts are large, firm, and well developed. The mons veneris is well developed and covered with a heavy growth of hair, normal in distribution, (as well as the axillary hair).

On examination of the external genitalia, the most striking feature was the complete absence of the vaginal orifice, which was replaced by an irregular, smooth, and firm ridge of skin, extending from the rudimentary clitoris to the normal location of the fourchette. The urinary meatus was located to the right, at the lower end of this ridge, in the region of the fourchette. The labia majora was well developed and covered with a heavy growth of hair. The labia minora and clitoris showed only rudimentary development.

Rectal examination showed an apparently complete absence of the uterus and ovaries.

An appendectomy with exploration of the pelvis was considered advisable.

Operation: A medium suprapubic incision revealed a complete absence of the uterus and broad ligaments. Both ovaries were slightly enlarged. Left ovary contained a serous cyst, 3.5 cm. in diameter. Both ovaries were located approximately in the normal position, and each was attached to the corresponding fallopian tube and round ligament. The fallopian tubes were apparently normal, 4 in., in length, interwoven with each corresponding round ligament and ending blindly together in the peritoneum on either corresponding side of the pelvis.

The bladder occupied its usual location anteriorly. On palpation of the perineum no rudiment of a vaginal canal was distinguishable; only a firm mass of soft tissue about two inches in thickness separated the pelvic cavity from the exterior.

The appendix, which measured 5 x 1 cm., was injected, congested, and covered with a mucopurulent exudate, and was removed.

Obviously, a plastic operation was not to be considered at this time in this particular case.

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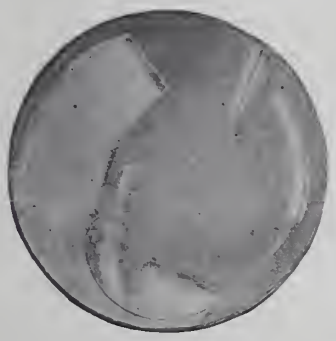

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Diphtheria	2-4 Days	After 12th Day—until cultures negative
Epidemic Meningitis	1st Week	Until cultures negative
Measles	2nd Week	Until 5 days from onset rash
Mumps	3rd Week	Duration of Swelling
Poliomyelitis	3-10 Days	21 Days
Rubella	3rd Week	Duration of catarrh and rash
Scarlet Fever	1st Week	After 21st Day—until cultures negative
Whooping Cough	2nd Week	Until 4 weeks from onset whoop

From American Journal of Public Health—March, 1927

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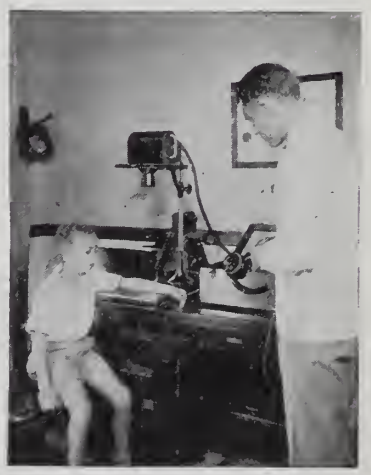

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VITAMIN UNITS AND STANDARDS

● The past five years have brought agreement between biochemists of the various nations as to suitable units and standards of reference for most of the vitamins essential to man. The practice of expressing the vitamin potencies of foods and other biological materials in terms of *International Units* is, therefore, fast becoming universal.

Believing that these units and the standards upon which they are based would be of interest to our readers, they have been tabulated and defined below (1):

Vitamin A

The reference standard is a solution of pure beta-carotene in an inert oil, of such concentration that one gram of solution contains 300 micrograms (0.300 mg.) of beta-carotene. The International Unit, or I.U., of vitamin A is the vitamin A activity of 2 mg. of this standard solution, or 0.6 micrograms of beta-carotene.

Vitamin B1

The reference standard is the concentrate produced from rice polishings, by a specified adsorption method, in the Medical Laboratory of Batavia (Java). The International Unit for vitamin B_1 is the vitamin B_1 activity of 10 mg. of this standard adsorption product.

Vitamin C

The standard of reference for vitamin C is a specified sample of pure levo-cevitamic acid (levo-ascorbic acid). The International Unit for vitamin C is the vitamin C activity of 0.05 mg. of this standard.

Vitamin D

The reference standard for vitamin D is a solution of irradiated ergosterol, prepared under specified conditions at the National Institute for Medical Research (London). The International Unit for vitamin D is the vitamin D activity of 1.0 mg. of this standard solution.

These International Units for expressing vitamin contents have been specified in the most recent Pharmacopoeia of the United States (2) as well as by the Council on Pharmacy and Chemistry (3) and the Council on Foods of the American Medical Association (3), and provision has been made for distribution of the standards in this country (4).

These units have been used to express vitamin potencies in recent studies on canned foods, the results of which further emphasize the fact that these foods rank among the most important sources of the vitamins essential in human nutrition (5), (6), (7).

AMERICAN CAN COMPANY

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(1) 1935. Nutrition Abstracts and Reviews 4, 709.
(2) The Pharmacopoeia of the United States of America, Eleventh Decennial Revision, p. 261.
(3) 1936. Report of the Council, J. Amer. Med. Assoc. 106, 1733.
(4) 1935. J. Assoc. Official Agr. Chem. 18, 610.
(5) 1935. J. Home Econ. 27, 658.
(6) 1936. Food Research 1, 223.
(7) 1935. J. Nutritioo 9, 667.

This is the nineteenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about conned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the Americon Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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You've often heard people say, "I must go on a diet"... or ..."I must go in for some strenuous exercise and work this fat off." But either course may be dangerous. Unwise dieting frequently substitutes, for the evil of obesity, the evil of undernourishment. Strenuous exercise obviously adds to the burden on an already overburdened heart.

There is only one sane thing for any overweight person to do. That is to see his doctor. Your doctor can determine whether obesity is caused by some fundamental physical disorder—such as glandular derangements—or whether it is the result of unwise eating combined with insufficient exercise.

Diet is a form of treatment; and it should *never* be prescribed by anyone but a physician. The doctor's knowledge is necessary in determining what foods, and how much, may be eaten —what diet will be safe and pleasant, yet effective, in removing unneeded, unsightly fat.

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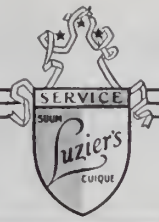

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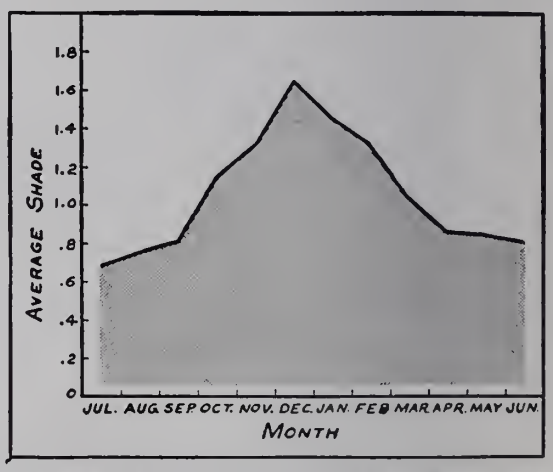

Average atmospheric pollution in 10 large American cities, 1931-1933. In many smaller communities, even worse conditions may prevail under any of the following combinations: (1) soft coal, (2) low inland wind velocity, (3) concentrated manufacturing activity, (4) no zoning regulations, (5) no smoke abatement ordinances.

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★ *Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245*
Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154
N. Y. State Jour. Med., June 1935, Vol. 35, No. 11
Arch. Otolaryngology, Mar. 1936, Vol. 23, No. 3, 306-309

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*Based on Laurens' "Physiological Effects of Radiant Energy", Page 44.

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THE WISCONSIN MEDICAL JOURNAL

VOLUME XXXV, NO. 12 Copyright, 1936, by The State Medical Society of Wisconsin DECEMBER, 1936

The Conservative Management of Hydronephrosis*

By JAMES C. SARGENT, M. D.
Milwaukee

ONLY a few short years ago, before cystoscopy came to be employed generally in the study of obscure abdominal and back pains, hydronephrosis quite commonly continued unrecognized until it had advanced to a degree producing its one and only classical symptom—Dietl's crisis. Even today, in the minds of many, hydronephrosis still means a large pain-producing water bag in the side, utterly useless, and the quicker out the better.

It is unfortunate that this impression remains so general because it does not take into account the fact that the common clinical warnings of a hydronephrosis during its earlier stages of development are intermittent dull aching in the side or back, an intractable urinary infection, attacks of excruciating colic of the stone type or even a distressing and confusing gastric syndrome. It also overlooks the fact that hydronephrosis, if recognized early, frequently can be cured by such relatively simple expedients as section of an unimportant anomalous renal vessel or suspension of a floating kidney. Finally, and by no means least of moment, this conception of hydronephrosis as a more or less functionless water bag curable only by nephrectomy, wholly disregards the common clinical observation that patients nephrectomized in their twenties for hydronephrosis often turn up in their thirties with hydronephrosis on the other side.

Very occasionally we find hydronephrosis produced by compression or narrowing of the lower ureter. Occasionally, too, it is caused by sharp angulation of the upper ureter, the result of undue renal mobility. The vast preponderance of cases of frank hydronephrosis, however, develop as the direct result of some curious vagary of anatomy at the renal pelvis. In certain instances an anomalous artery or vein enters the hilus of the kidney in such a way as to compress or angulate the ureter where it leaves the pelvis. Most common of all, it occurs as the end effect of a very slight but very real anatomic narrowing at the point where kidney pelvis and ureter merge. Aberrant blood vessels and anatomic narrowings, like long ears or extra toes, tend strongly to be two-sided. It is this pertinent fact that explains the common tendency to bilaterality in hydronephrosis and makes conservation the keynote in its management.

A few years back, almost everyone interested in the field of urology, was more or less hopelessly smitten with the bug of ureteral stricture and ureters were dilated right and left. At least insofar as frank hydronephrosis is concerned, practically nothing came out of this holocaust of cystoscopic instrumentation. Even in those relatively rare instances in which real obstruction was located at the lower ureter, very little could be accomplished by ureteral dilatation simply because bougies could not be manipulated through the tight organic strictures and, obviously, whenever the ureter was being flattened by the compression of some adjacent mass, nothing but its removal could be expected to relieve the obstruction.

Illustrative Cases

Figure 1 presents the preoperative and the six-year postoperative pyelograms in the case of a young man with severe right hydronephrosis the result of compression of the lower ureter by an enormous tumefaction of

* Read before the Ninety-fifth Anniversary Meeting of the State Medical Society of Wisconsin, Madison, Sept. 10, 1936.

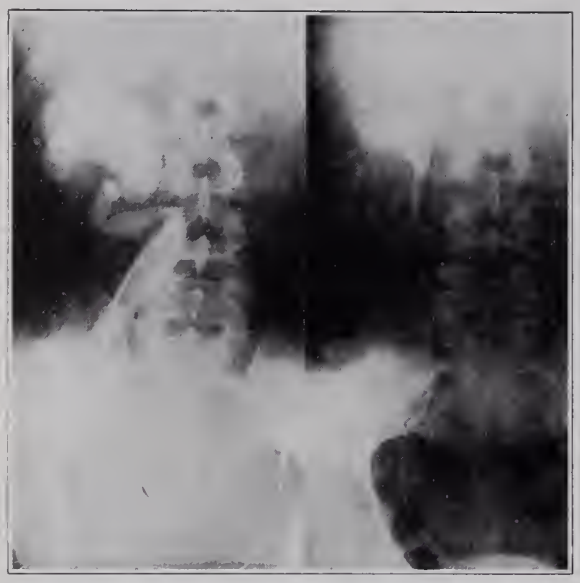

Fig. 1. Films taken before, and six years after, removal of a pelvic tumor compressing the lower ureter.

the other kidney congenitally misplaced in the bony pelvis. With the mass removed and the pressure on the lower ureter released, free drainage was reestablished and good anatomic and functional recovery followed.

Rarely we encounter true organic stricture of the lower ureter, either the result of tuberculous ulceration or following long impaction of an ureteral stone. Very exceptionally an organic stricture of this type can be kept open by the passage of ureteral bougies. However, when they are sufficiently severe to have produced substantial dilatation of ureter and kidney above, they are usually too tight and tortuous to permit successful instrumentation. The kidney then must be sacrificed or, whenever this is not feasible, drainage must be accomplished by permanent nephrostomy.

Figure 2 presents the case of an adolescent boy whose left kidney was removed in 1928 because of renal tuberculosis with secondary bladder involvement. The first of this series of pyelograms shows the non-tuberculous kidney at that time. Within a year following removal of the tuberculous left kidney, the severe secondary cystitis had cleared up

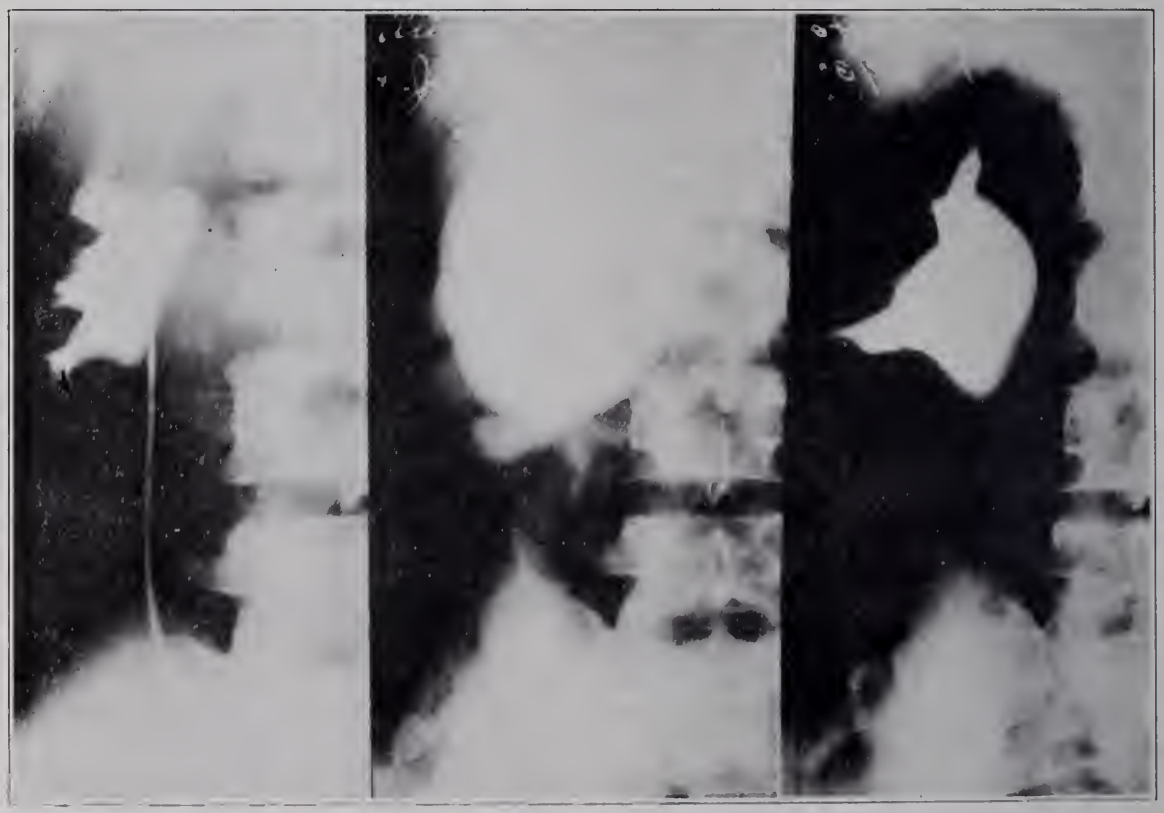

Fig. 2. Cicatricial narrowing of the extreme lower end of the ureter: (a) before hydronephrosis; (b) at full development; (c) after five years of nephrostomy drainage.

and the boy was considered cured. In 1930, however, he returned in bad general health, suffering considerable pain in the remaining right kidney. The second view presents the intravenous urogram and shows the enormous hydro-ureter-nephrosis that had developed in the interval from severe cicatricial contraction of the ureteral end as it entered the scarred bladder wall. The boy was badly uremic so that permanent nephrostomy had to be done as the only possible means of sidetracking the urine and saving his life. With this and several other illustrations used today, we recently published a paper calling attention to the remarkable anatomic involution that can be expected to occur once the obstructing factor causing frank hydronephrosis has been successfully removed. The third view shows the pyelogram of our boy now grown to manhood. While satisfactory recovery of renal function followed his nephrostomy drainage, certainly the anatomic involution of that distended water bag of 1930 to a comparatively normal kidney in 1935 is truly remarkable.

Many of us here today remember the time when surgical suspension of a floating kidney was almost as common as appendectomy. The frequency with which it failed to relieve the wide variety of symptoms for which it was proposed soon drove the operation into disrepute and the time came when one venturing to do a nephropexy was considered almost a quack. As our understanding of renal pain and its causes has advanced, we now have come to realize that there are occasional patients in whom an unduly mobile kidney, by angulating its own ureter, results in actual symptom-producing obstruction. Nephropexy, under such circumstances, is a perfectly sane and effective operation provided it be done while the hydronephrosis is yet young. After the kidney pelvis has come to be badly dilated, the anatomic structures are altogether too distorted and fixed to be straightened out merely by suspension of the kidney.

Figure 3 illustrates the type of nephroptosis that actually produces obstruction at the renal pelvis and what can be accomplished by nephropexy when cases are properly selected for its use.

Fig. 3. Early hydronephrosis from kinking of the ureter due to extreme renal mobility. One year postoperative film shows the kidney well fixed and draining perfectly.

So much for the lesser causes of hydronephrosis. With an almost monotonous regularity we find frank hydronephrosis occurring as the end result of a very slowly progressive obstruction produced by some unnatural anatomic formation in the structures at the renal pelvis. Figure 4 illustrates one of the two common anatomic vagaries so frequently found responsible for the development of hydronephrosis. Surgical exposure of the left kidney in this case revealed an anomalous blood vessel entering the lower

Fig. 4. Before, and one year after, plastic correction of left hydronephrosis caused by an anomalous blood vessel.

aspect of the renal hilus from behind and in such a manner as to produce a pressure indentation right at the junction of ureter and pelvis.

Obstructing anomalous vessels are coming to be recognized more frequently while hydronephrosis is yet young and while division of the offending vessel is all that is necessary to effect a cure. Far too often, however, these cases escape recognition until indentation and angulation at the ureteropelvic juncture has become too fixed a thing to be corrected simply by division of the vessel. After division of the offending vessel, it was evident that sharp angulation would still persist so the angle between pelvis and ureter was drawn out, slit lengthwise on its convex aspect and sewed transversely using the Heineke–Mikulicz principle of plastic correction for pyloric stenosis. The one-year postoperative pyelogram seen in the second view shows the vast improvement in pelvic drainage that followed.

This patient had been suffering for several years with nearly constant left backache punctuated now and then by a week or two of severe pain with chills and fever. Obviously, cure would have been certain and quite simple by removal of the offending organ. Two things, however, had to be given proper consideration. One was the fact, clearly evident in this preoperative intravenous urogram, that the left kidney still retained a very worth-while power of excretion. The other and by far the more important was the fact, already quite obvious, that an identical type of deformity was in the process of development on the opposite side. With substantial renal function still remaining and with the slightest suggestion of dilatation of the opposite pelvis, nephrectomy for hydronephrosis is a mighty radical procedure.

Fig. 5. Enormous hydronephrosis before, and one year following, plastic correction. Note the remarkable anatomic involution that has occurred.

At times, hydronephrosis of enormous proportion is encountered. As a rule a water bag of this size is utterly functionless and should be removed. Even in such advanced cases, however, it is well to have a look. Figure 5 shows a kidney of just such proportions. It should be noted that the shadow in this instance was obtained by intravenous urography and the amount of the drug that has come through gives ample proof of worthy function regardless of its enormous size. As is so often true, evidence of an early deformity was apparent in the other kidney. At operation an aberrant renal vein was demonstrated as the etiologic factor and again the Heineke–Mikulicz type of plastic seemed adequate to reëstablish graceful continuity of pelvis and ureter. The second view shows the intravenous urogram one year later and illustrates, better than words could ever describe, the very remarkable anatomic readjustment that occurs in these hydronephrotic kidneys once the factor of distending back pressure has been removed. In this case, cystoscopic study now shows the kidney function to be reasonably normal and what was once a pelvis of well over a pint capacity now drained down to some two ounces of crystal clear urine culturally free from infection.

While anomalous renal vessels have a prominent place among the etiologic factors responsible for hydronephrosis, leading them all by far is the anatomic vagary of a true ostium, fibro-muscular in character, marking abruptly where pelvis leaves off and ureter begins. Here again the underlying etiologic factor, being of an anatomic nature, is almost constantly bilateral. The frequency with which careful study reveals some suggestion of early distention in the supposedly normal kidney makes casual nephrectomy for hydronephrosis a thoroughly risky and radical procedure.

In the four months postoperative intravenous urogram seen as the second view of figure 6, the left kidney shows precisely the same ostial narrowing as that responsible for the changes in the right side. In fact definite ballooning of the pelvis is already evident. Obviously it is but a matter of time before it, too, will begin to bother. The first

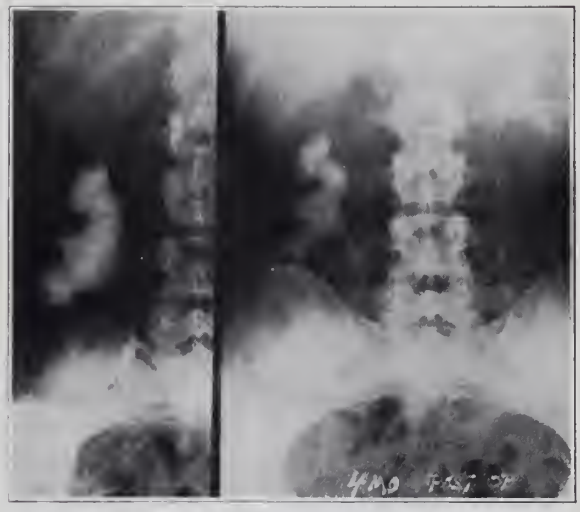

Fig. 6. Right hydronephrosis before, and four months after, complete plastic reformation of the uretero-pelvic juncture. Note early changes in the other kidney.

view shows the right half of the original intravenous urogram. Excretion of the drug in good concentration indicated clearly that worth-while function still remained. This taken together with the potential hydronephrosis in the opposite kidney argued strongly against nephrectomy.

When, as in this case, the lumen is found almost obliterated at the point of obstruction, it becomes necessary to sever the ureter from the pelvis and make an entirely new union. While one might be inclined to doubt the outlook in so elaborate a surgical procedure, the literature on this subject indicates clearly the consistency with which it has been found to be both successful and safe. Certainly, in this patient drainage from the pelvis into the ureter now seems perfectly free and although only four months have elapsed the pelvis and calices already are responding nicely to release of back pressure.

In figure 7, more than in the preceding case, it is evident that a large part of the flabby, distended extra renal pelvis might well be cut away as long as the uretero-pelvic juncture must be completely reconstructed anyway. The one-year postoperative pyelogram, while definitely over-injected, shows the same anatomic involution seen so consistently after obstruction has been successfully released. The one year postoperative recheck disclosed, by catheter suction, only an ounce

Fig. 7. Before, and one year after, removal of a large part of the extra-renal pelvis and complete plastic reformation of the uretero-pelvic juncture.

of residual urine in the operated pelvis and here, as in each of the other cases in this series, complete clinical cure occurred.

Ten years ago a young man (figure 8), feverish, with severe pain, and in advanced uremia, entered the old Trinity Hospital. Through a small lumbar incision a temporary nephrostomy tube was punched through the thin, frail wall of his enormously dilated left kidney. Within several weeks he was feeling much better and his high blood nitrogen had washed out reasonably well. The right kidney then was exposed sufficiently to permit a simple lateral anastomosis between the upper ureter and the dependent part of the enormously distended renal pelvis. A nephrostomy tube drain was left to protect the anastomosis. During the succeeding months, with a whiskey bottle on each hip to catch the kidney urines, he was allowed ample time to regain his general health. This film was made during the interval by gravity filling of both kidney cavities through the nephrostomy tubes. In it, one can see clearly the point of right uretero-pelvic anastomosis with the contrast fluid already flowing freely into the ureter and on to the bladder. In due time, the left kidney pelvis and ureter were exposed sufficiently to permit a lateral anastomosis identical with that done on the right side. After the patency of this second anastomosis was proven, both nephrostomy tubes were pulled and their sinuses allowed to close. Today, now ten years after his three operations, this patient is in good general health and hard at work as a machinist in one of our large factories.

Not only does this case serve to show the possibilities that lie in conservative renal surgery but by presenting simultaneously a fully developed hydronephrosis on each side, it also serves to remind us that bilaterality is too real a possibility in this curious disease to justify thoughtless removal of royal tissues which, at some later date, may prove necessary to life.

Fig. 8. Bilateral giant hydronephrosis visualized by jection through the two nephrostomy tubes. The r plastic has been completed and can be seen draining fr into the bladder.

DISCUSSION

Dr. Meredith F. Campbell (New York): I wish to congratulate Dr. Sargent upon his excellent presentation. He has admirably given us his ideas and has crystallized the accepted views of most urologists. The

urologist's attitude in the surgical treatment of hydronephrosis will largely depend on whether he is a pessimist or an optimist. I must confess to a certain pessimism. Although conservative treatment has been rather liberally employed in my patients, the end results of the conservatism have too often demanded nephrectomy, especially when plastic procedures have been employed. Yet this experience is by no means unusual and only by treating the many will we cure the few.

It is an old aphorism that an operator can remove an organ but it takes a surgeon to save one. I have been particularly interested in trying to save children's kidneys injured by hydronephrosis secondary to congenital obstruction. We have, therefore, somewhat leaned over backward in the generous employment of conservative surgical treatment, bearing in mind its limitations and the possibility that subsequent nephrectomy may be required. Yet only through the prompt recognition of hydronephrosis will worth-while opportunities for saving kidneys be afforded. Especially is this true as the condition affects children. Factors which will help in the early recognition of the lesion in the young are: (1) hydronephrosis is the commonest abdominal tumor in children; (2) the performance of a complete urologic examination in any child complaining of persistent pain in the loin or in whom urinary infection resists intensive medical therapy of three to four weeks' duration.

The treatment of hydronephrosis necessarily depends on the etiology, e.g., whether due to calculus blockage, uretero-pelvic junction stricture, or to ureteral compression by aberrant blood vessels or periureteral bands of scar, notably in the uretero-pelvic area.

The conservative treatment of hydronephrosis need not necessarily imply a successful ureteroplastic operation. In some cases the mere maintenance of renal function by nephrostomy drainage must be considered sound conservative treatment. The employment of conservative treatment will depend on: (1) whether the kidney is worth saving, (2) the necessity for saving the organ and finally, (3) the possibility of conserving it.

There is probably little argument against nephrectomy for advanced hydronephrosis when the renal mate is sound. Early or moderate hydronephrosis in the absence of pronounced renal infection almost always merits conservative efforts. Yet small hydronephroses like small dogs often cause the most commotion.

Occasionally the hydronephrotic organ must be saved as, for example, when the mate is congenitally or surgically absent. In a four-year-old boy born without a left kidney, a uretero-pelvic junction stricture on the right side caused a hydronephrosis (infected) of one litre capacity. A ureteropelvoplasty was attempted on the solitary kidney but failed; the boy lived four years and in fair comfort by a nephrostomy tube.

Occasionally in bilateral nephropathy the mate must be removed after the condition and function of the better though hydronephrotic kidney has been improved.

In an eight-year-old girl with advanced bilateral hydronephrosis secondary to uretero-pelvic junction stricture, left nephrostomy drainage was instituted at once (left hydronephrosis 800 cc.). Subsequent investigation proved the right kidney dead by hydronephrotic atrophy. When the function of the left kidney had improved (phthalein output increased from 2 per cent to 42 per cent in two hours) the right kidney was removed. The child lived by left nephrostomy tube drainage for three years.

The possibility and probability of renal salvage must also guide selection of the surgical procedure. When, after giving the hydronephrotic kidney free drainage by nephrostomy or indwelling ureteral catheter and for a period of one to four weeks, the function of the organ remains negligible, the kidney should be removed provided its mate will support life.

I am not here concerned with the details of the various methods of conservative surgical treatment of hydronephrosis. Dr. Sargent has indicated these. Of the plastic operations for stricture or narrowing at the pelvic outlet, the Schwyzer–Foley procedure when applicable, seems the choice; certainly Foley's results have been the best to date. In about two out of five cases of hydronephrosis due to vascular obstruction of the upper ureter, blockage may be relieved by cutting the vessels, or by circumventing them by ureteropyeloneostomy, or simply by freeing the kidney from the obstructing vessels and suspending it.

Although Mixter believes 70 to 80 per cent of children's kidneys injured by hydronephrosis due to vascular obstruction should be saved, I feel 50 per cent is a good record. Of 17 such cases I have operated on in children, the kidney had to be removed, either primarily or secondarily, in ten.

Certain uretero-pelvic strictures which produce hydronephrosis can be adequately treated by retrograde dilatation with bougies passed through a small ureterostomy incision 1 to 1.5 cm. below the obstruction. I have found this method particularly encouraging in some of my younger patients. Moreover, when operating for uretero-pelvic obstruction of any kind and at any age, we make it a point to have in readiness the proper dilating instruments—either silk bougies or small steel sounds—with which to perform the dilatation should it seem practicable.

In some hydronephroses consequent to secondary uretero-pelvic kinking which in turn is due to lower ureteral blockage, only eradication of the peripheral obstruction may be required.

Imperforate Anus*

By STANLEY J. SEEGER, M. D.
Milwaukee

VARIOUS congenital defects of the hind end of the body are usually grouped under the term imperforate anus. Six cases illustrating as many types of these anomalies are here reported; the possibilities of surgery in several instances are demonstrated, as is the method of determining the exact relation between the blind end of the rectum and the perineum by means of radiography.

There is some difference of opinion as to the frequency of these defects. Fraser gives the incident as one in 10,000 births; Tuttle, as one in 5,000; David, (Lewis' Surgery), as one in 1,500. Keith, (1908), reported 114 cases of which 37 were illustrated by specimens prepared by John Hunter. It is probable that the incidence is greater than is usually believed. Cases may be unreported when infants die as a result of an anomaly, and in instances in which the condition is not incompatible with life, no attention may be called to its occurrence. In women, the commonest anomaly of this type is a communication between the rectum and vagina, and cases are recorded of women with this condition who have borne children without difficulty.

The simplest explanation of the development of the rectum and anus will suffice as a practical basis for surgical consideration of the various anomalies encountered.[1] In early embryonic life, the terminal segment of the intestine and the bud, which form the primary bladder and urethra, constitute a single cavity, the cloaca, which is separated from the exterior by the cloacal membrane. The anal canal is formed by a depression on the surface of the body which deepens to form an invagination of the epiblast. This depression is called the proctodeum, the cloacal membrane covering its base. The cloaca is transformed into two cavities by the downgrowth of a frontally placed partition, the urorectal septum. The ventral space represents the urogenital sinus and the dorsal forms the rectum. The cloacal membrane is not broken through to the outside until the urorectal septum has divided the cloaca. The anal portion of the cloacal membrane breaks through first. The time at which this membrane ruptures and the intestinal canal opens to the outside of the body is variously stated to be between the seventh week and the beginning of the fourth month. Failure of the membrane to rupture results in the simplest form of the anomalies of this region, namely, true imperforate anus.

Of great theoretical interest is the fact, which Arey states is constantly observed in studying embryos, that the individual in its development seems to repeat hastily and imperfectily its own evolutionary history. In accordance with this so-called law of recapitulation, the fertilized ovum may be compared to a unicellular organism like the ameba. The blastula represents the adult Volvox type; the gastrula, a simple sponge; the segmented embryo, a worm-like stage; and the embryo with gills, a fish-like stage. In the evolution of mammals we find that the rectum migrates backward until its vent or anus almost reaches the surface of the perineum, leaving the greater part of the cloaca as the urogenital sinus. The similarity between certain congenital anomalies in the human and the normal arrangement among higher mammals is interesting. One example is the resemblance between the normal arrangement in the marsupial and the human anomaly in which the rectum opens into the vagina. This phase of the subject is quite thoroughly discussed and illustrated by Keith in his text on embryology and morphology.

It is important from the surgical standpoint to know that the external sphincter and also the internal sphincter are developed in connection with the perineum and not with

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* From Milwaukee Children's Hospital. Presented before Ninety-fifth Anniversary Meeting, State Medical Society of Wisconsin, Madison, Sept. 1936.

[1] This description is diagrammatic, but is sufficiently in accord with embryologic facts to serve as a basis for an understanding of surgical problems.

the bowel. Hence, if a proctodeum is present, the surgeon may rely on obtaining an orifice provided with competent sphincters. While there are certain embryologic points which have not been definitely determined, this concept is generally held and offers a safe-working hypothesis. According to Tuttle, in the majority of cases in which the anus is absent, the sphincter is absent also. The cause of these errors in development is not known. Fetal peritonitis, adhesions, and heredity have been advanced as explanations. Keith believes that their explanation is likely to be discovered by experiments on animals. He quotes Mall as stating that 163 malformed embryos showed evidence of inflammation of the chorion. Keith believes that uterine inflammation will be found to be the commonest cause of fetal malformations. Since the migration backward of the rectum is connected with a sexual process, namely, the evolution of the genital organs, it is possible that the cause of arrest may be found in the primary defect of the sexual glands. Jansen is of the opinion that a search for mechanical causes in cases of congenital deformity will yield valuable clews. It is his opinion that smallness of the amnion is the cause of numerous deformities.

The following simple working classification of these anomalies is suggested by Ombredanne:

1. No opening of the digestive tract.
   a. Imperforate anus.
   b. Absence of anus.

2. Abnormal anatomical openings of the digestive tract.

3. Constriction of the anus.

A more detailed classification is given by Brenner. (Apparently this classification is a modification of Pappendorf's and Tuttle's).

A. Atresia ani:

1. Partial occlusion or narrowing of the anus.

2. Complete occlusion of the anus by a membranous diaphragm.

3. Total absence of the anus, the rectum ending in a blind pouch.

4. Total absence of the anus, the rectum opening into the bladder, urethra, uterus, vagina, perineum, or sacral region.

B. Atresia recti:

1. Partial occlusion or narrowing of the rectum.

2. Complete occlusion by a membranous diaphragm.

3. Complete absence or extensive obliteration of the rectum.

C. Rectum and anus normal, but ureters, uterus, or vagina emptying into the rectal cavity.

D. Absence of the large intestine, rectum and anus.

E. Rectal diverticuli.

Rectovaginal communications are the type of malformations most frequently encountered. Rectourethral fistulae constitute a high percentage of cases in the male.

The simplest forms are not difficult to recognize. In cases of true imperforate anus the presence of a bulging membrane establishes the diagnosis. In more serious types the absence of an anal dimple may indicate developmental error, or digital examination of the apparently normal anal canal will reveal lack of communication with the rectum. It is important to remember that the degree of development of the anal depression is no index of the degree of development of the rectum. For this reason blind efforts to establish communication between the two are contraindicated.

For the first twenty-four hours after birth usually no symtoms of intestinal obstruction are present even though the intestinal canal is completely occluded. After the second day distention manifests itself and gradually becomes more marked. Death will ensue within a week or ten days unless the condition is corrected surgically.

Choice of Procedure

Confronted with a case in which an anomaly with intestinal obstruction exists one must decide whether an attempt should be made to open the rectum from below or to perform a colostomy. When a bulging membrane is present, incision of the membrane is clearly indicated. However, this procedure

should be limited to cases in which the nature of the condition and the location of the terminal end of the bowel are obvious. The exact relation between the lower end of the rectum and the perineum must be accurately known. In the past, various methods have been advocated as of value in making this determination. Tuttle recommended that pressure be made upon the abdomen with one hand while the other hand is placed upon the perineum in order to detect any impulse from the rectal pouch when the child is caused to strain or cry. He also suggested that percussion while the stethoscope is applied to the perineum may aid in determining the proximity and the site of the rectum. An abnormally short distance between the tuber ischii has been looked upon as an indication of absence of the rectum low down in the pelvis. Wangensteen has made the most important contribution on this point. He demonstrated that, because of the presence of air in the bowel, x-ray pictures made with the infant in the inverted position revealed very clearly the exact point at which the rectum terminated. The great value of this method is demonstrated by one of the cases which is here reported. The importance of such general measures as the application of external heat and the subcutaneous administration of normal saline solution should be given emphasis as they may easily be overlooked.

If the bowel appears to be sufficiently low in the pelvis so that one can bring it to the surface, perineal opening is indicated. Trocar puncture of the perineum in an attempt to establish communication between the perineum and the bowel is obsolete. Open dissection is the only safe method of procedure and it can usually be done with small amounts of local anesthesia. The important rules to keep in mind are that the incision should be in the midline and one should work as close to the sacrum as possible. When an anal dimple is present, one should make the incision backward from this point. The peritoneal cul-de-sac may be interposed between the rectum and the anus. Opening the peritoneum is not a particularly serious matter since the contents of the bowel are sterile at birth. When the lower end of the rectum is reached it should be gently separated from the surrounding tissues and brought to the surface. It is important that there be no tension on the bowel. After opening it the edges should be sutured to the skin. Suturing a tube in the bowel is not necessary, but when this is done one should watch carefully so that no pressure necrosis is produced. When making a perineal dissection in the male, it is well to insert a catheter or sound into the urethra. Every effort should be made to preserve the sphincters. Amussat, (quoted by Tuttle), advocated the removal of the coccyx if necessary in order to bring the rectum to the surface. Following perineoplasty there is a tendency for cicatricial contraction of the new anal orifice. However, with careful supervision of diet and habits the results are satisfactory.

When there is an atresia of the rectum so extensive that it does not enter the pelvis, and in cases in which a rectovesical or rectourethral fistula exists, colostomy should be done. Immediate operation is imperative when obstruction exists. Delay in the hope that the general condition of the child may improve or that a spontaneous opening will develop may be disastrous. In neglected cases with great distention it is better to do a colostomy than to attempt to open the bowel through the perineum. The shock and blood loss attending the latter method may prove too great a hazard in desperately sick patients. Closure of the colostomy at a later date offers no serious difficulties and may be done when rectourinary fistulae have been successfully closed or when a satisfactory perineal anus has been established. The simplest type of colostomy should be done. The bowel should not be sutured to the peritoneum or the skin. A glass rod through the mesentery and across the wound, holding up the loop of bowel which is brought to the surface, is the safest method. When the peritoneum is opened, one should attempt to push the lower end of the sigmoid or rectum into the pelvis as in some instances it has been found that it is possible later to establish communication through the perineum following this procedure. Rectourethral or rectovesical fistulae are best corrected in the second or third years when the nutrition of the child is well established.

When a rectovaginal communication is the only deformity present operation should be delayed until the patient is from five to ten years of age. The most satisfactory operation is that described by Rizzoli, (quoted by Tuttle), in which a racquet type of incision is made. The loop should include the opening of the rectum together with a small amount of vaginal tissue. This is done with the idea that some sphincteric action may have been acquired by the bowel in its abnormal position. The straight limb of the incision extends backward in the midline to the coccyx. The rectum is gently freed so that it can be brought without tension to the surface. The muscles of the perineum are then sutured, an effort being made to suture the external sphincter. From the time of birth until operation is decided upon, these patients should be observed so that the development of a constriction with resulting dilatation of the rectum and sigmoid does not occur. It may be necessary from time to time to dilate the abnormal vaginal orifice. Case 6 is one illustrating this type of deformity.

In patients presenting fistulous tracts opening into the perineum with no sphincteric control and in whom chronic obstruction occurs because of cicatricial contraction, colostomy should be seriously considered. Following colostomy plastic operations may in some instances be done which will greatly improve the function of the anus. Case 2 illustrates this type. The rectovesical fistula was closed and the anal canal was reconstructed, and, in a series of plastic operations, satisfactory rectal control was established by the utilization of the levators ani and gluteii maximi. In case 5 a colostomy was done because of marked contraction of the vaginal outlet of the rectum and the presence of an associated urinary incontinence. Case 4 is of especial interest since it illustrates the point that an isolated segment of bowel may be present in the pelvis. The absence of meconium and of air in such a segment would indicate the presence of atresia of the bowel proximal to the loop which was opened. This case illustrates, also, the fact that congenital anomalies of the hind end of the body are often associated with other deformities.

Summary and Conclusions

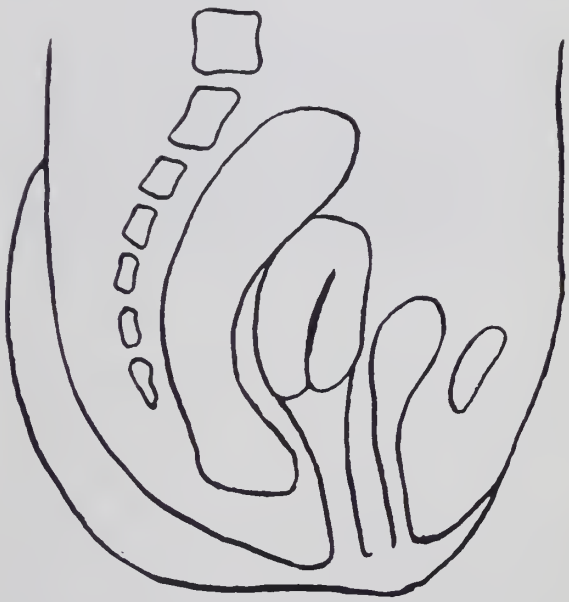
1. Radiological examination offers a means of determining accurately the relation between the blind end of the rectum and the perineum.

2. Six cases of congenital malformations of the rectum and anus are reported. These illustrate the value of the above procedure; the possibility of correcting urethrorectal and urethrovesical communications and of restoring anal function by various operative procedures.

3. Embryologic studies are of great importance and interest to the surgeon working in this field.

Case Reports

Case 1. E. D., Milwaukee Children's Hospital # 35481. Female. Born April 2, 1935. Admitted to the hospital April 4, 1935. Normal delivery; full term; respiratory onset normal. Imperforate anus noted immediately after birth. An unsuccessful attempt was made by the attending physician to open into the bowel through the perineum on the first



Case 1

This illustrates one of the commonest types of deformity usually referred to as imperforate anus. This condition is amenable to perineal operation. The relation between the terminal rectum and the perineum can best be demonstrated by means of x-ray. The anal canal is undeveloped, but the external sphincter is present.

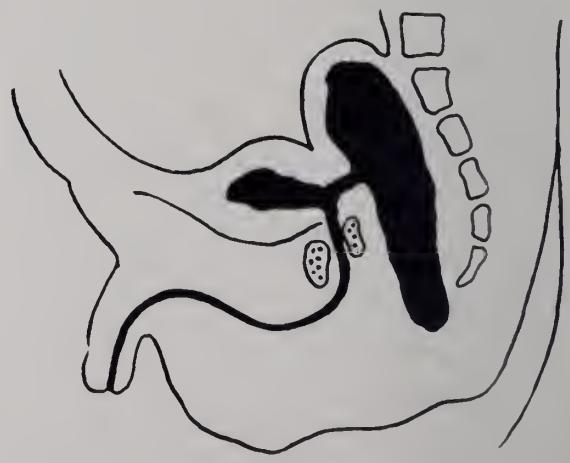
day of life. The child was sent to the hospital with a recommendation that colostomy be done.

On admission to the hospital the child was cyanotic and prostrated. Temperature, 95 F. The cyanosis cleared up on application of external heat. Temperature after 4 hours was 99 F. The abdomen was distended, firm and tympanitic. There was a small surgical incision in the region of the anal dimple which seemed to extend into the left ischiorectal fossa. X-ray examination in the inverted position revealed the site of the lower end of the rectum to be near the perineum. Operation, April 4, 1935. The surgical incision which was present was enlarged

Case 1. X-ray photograph of infant with imperforate anus taken in the inverted position. The relation between the terminal rectum and the perineum is plainly indicated. By placing a forcep or other opaque object at the normal site of the anus this relationship can be brought out more distinctly.

and the bowel was found without difficulty near its apex. The bowel was pulled down and the mucosa attached to the skin margin. A large sized rubber tube was sutured into the anal opening. A large amount of meconium was discharged. Condition improved rapidly. Patient was discharged May 13, 1935. General condition remained good and the anal function was satisfactory.

Case 2. C. B., Milwaukee Children's Hospital # 16954. Male. Seven years of age. This child was admitted to the hospital in 1933 at the age of seven years. The history states that he was born with an imperforate anus and that he was operated on when he was one day old, an incision having been made in the rectum through the perineum. For a time this incision was dilated weekly, but apparently after some months this practice was discontinued. The child developed some constriction of the anal opening which was dilated surgically. The history states, also, that at the age of two months fecal matter was first noticed in the urine. Feces continued to be discharged intermittently through the urethra until he was three years old. At the same time the parents noted that urine was occasionally discharged from the rectum. At the time of his admission to Milwaukee Children's Hospital the anal canal was found to be greatly dilated, to be about two inches in length, one inch in diameter and its walls were composed of firm scar tissue. Above the anal canal the rectal wall could be plainly seen without the use of any instrument. Urine was discharged freely from the anal canal. Urine was also voided normally through the urethra, but in amounts less than normal. On October 9, 1933, surgical exploration of the perineum was made. The end of the rectum was found to be just above the remnants of the anal canal about two inches from the skin surface. The rectum was found to communicate with the neck of the bladder. The mucosa was dissected free and was brought down to the cutaneous margin. The urinary fistula was closed. The bladder function was satisfactory thereafter. Following healing of the perineum it was determined that there was a segment of the external sphincter present on the right side between nine and twelve o'clock, but no other sphincteric action could be demonstrated. On August 6, 1934, Stone's operation was done in an effort to give sphincteric control, but the prepared fascia which was used sloughed out and the result was unsatisfactory. Following this, the rectum was still quite wide open and it was thought inadvisable to close the colostomy. Several plastic operations were done subsequently in an ef-

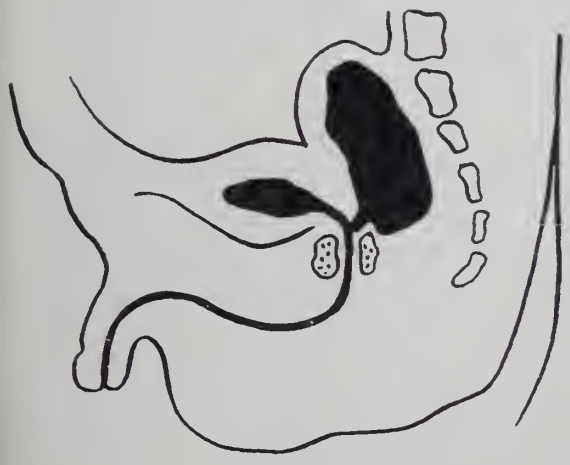


Case 2

Imperforate anus with atresia of the terminal rectum, absence of the anal canal and rectovesical fistula.

fort to provide muscular control. In one of these operations, in August, 1935, the levators ani were brought together in the posterior line making a muscular sling for the lower end of the rectum. At the same time the anterior margins of the gluteii maximi were approximated so as to bring them closer to the posterior rectal wall. At a subsequent operation, in January, 1936, the levators and gluteii were advanced still farther toward the outlet and toward the front of the rectum. The posterior end of the segment of sphincter, which was on the right, was brought around the posterior anal margin and attached to the left side at three o'clock. On February 17, 1936, the colostomy was closed and satisfactory control of fecal matter and gas was found to have been established. In March, 1936, the anus and rectum were examined under anesthesia. There was some narrowing of the outlet and this was dilated.

Case 3. E. U., Milwaukee Children's Hospital # 37312. Male. One year of age. Admitted March 2, 1936. The patient was born with an imperforate anus and was operated on elsewhere when one day old, a left inguinal loop colostomy being done. The parents stated that before the colostomy was performed fecal material was present in the urine. Examination revealed a poorly nourished child with a functioning loop colostomy in the lower left quadrant of the abdomen. The colonic mucosa was prolapsed and reddened and there was considerable induration about the colostomy wound. There was no anus present. In the midline of the abdomen a hard mass could be felt extending downward from the umbilicus, which was thought to be fecal matter. On the left side of the abdomen above the colostomy a smooth mass extended upward to the costal margin. Attempt at cystoscopy was unsuccessful because of the small urethra. X-ray examination of the lower loop did not reveal any communication with the bladder.



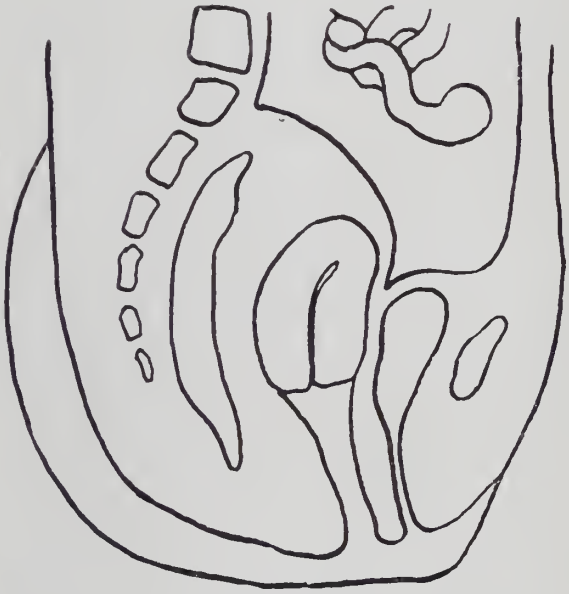
Case 3

Atresia of the lower rectum, rectourethral fistula and absence of the anal canal. The fistula opened into the urethra at a point just above the verumontanum.

Catheterization revealed no urinary retention. The child developed whooping cough and died April 13, 1936.

The autopsy revealed bilateral bronchopneumonia; bilateral pyonephrosis; bilateral renal abscesses; a left perinephritic abscess; pertussis, and acute epididymitis. Examination of the gastro-intestinal tract revealed that the portion of the colon distal to the colostomy was narrow, atrophic and empty. The rectum ended in a blind pouch well down in the pelvis at the level of the prostate. There was a small pin point communication between the distal portion of the rectum and the prostatic urethra. This could be demonstrated by filling the rectum with air and then compressing it. The remainder of the gastro-intestinal tract was normal. The seminal vesicles communicated normally with the urethra.

Case 4. The body was that of a female fetus, stillborn, measuring 50 cm. in length. The only visible external deformities were a small umbilical hernia



Case 4

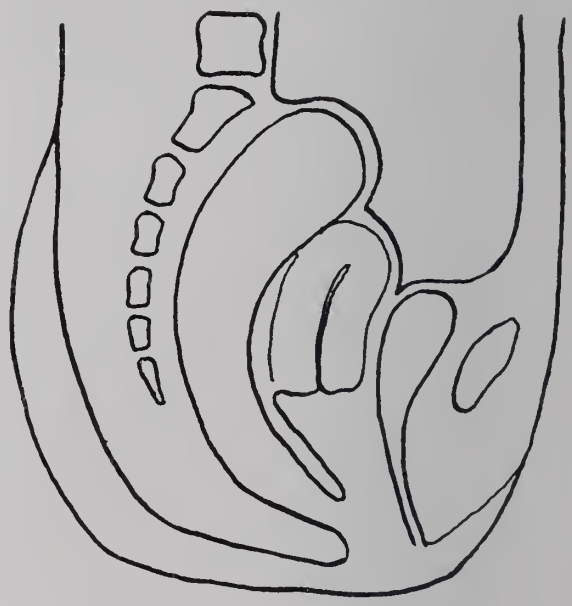
The rectum is represented by an isolated segment of bowel. The anal canal is absent. The large intestine is almost entirely absent and the ileum terminates blindly.

and the absence of the anus. There was no dimple present at the normal site of the anus. Numerous anomalies of the contents of the thorax and abdomen were found. The ileum terminated in a blind end which lay free in the peritoneal cavity. In the right lower quadrant of the abdomen a structure resembling the normal adult vermiform appendix emerged from the parietal peritoneum behind the uterus. It had a small thin mesentery attached to the peritoneum and ended in a fibrous mass which was buried retroperitoneally. The length of this structure was

5 cm. No other structure representing the cecum, ascending, transverse or descending colon could be found. Microscopic examination of the walls of this structure revealed it to be large intestine. Low in the pelvis a segment of sigmoid and rectum 4 cm. in length, 1 cm. in diameter with a lumen of 0.57 cm. ended blindly in the perineum 1.5 cm. from the surface. This segment of bowel contained clear mucoid material. Microscopic sections taken from this tissue at three points in the circumference of the termination of the bowel in the perineum showed a rudimentary sphincter ani.

This dissection illustrates the point that an isolated loop of bowel may be present low down in the pelvis and that this might be opened surgically through the perineum in the hope of establishing intestinal continuity. However, the presence of other anomalous conditions in the intestinal tract with the absence of any continuity in the alimentary canal would make the procedure useless. The absence of bile-stained meconium in the segment of rectum in such a case would lead one to infer that the intestinal canal was not patent. Were a patient such as this to be born alive, the x-ray examination in the inverted position would reveal the absence of the colon and rectum.

Case 5. M. K., Milwaukee Children's Hospital # 35668. Female. Eight years of age. The mother stated that the child was born without a rectum and that incontinence of urine had been present ever since birth. Fecal matter had been passed from the vagina since birth and the patient has had no control of feces or urine at any time. When the patient was six weeks old there was evidence of beginning intestinal obstruction and the vaginal outlet was enlarged by surgical operation. Dilatation was done frequently until the age of two years. On examination, the patient was thin and under-nourished. A mass of hard fecal matter was palpable in the lower abdomen. Examination of the perineum revealed the absence of the anus. There was a scar extending backward from the fourchet. The opening of the rectum was on the posterior vaginal wall about two inches from the introitus. On May 20, 1935, a left inguinal loop colostomy was done. Fluoroscopic examination subsequently done showed that the lower loop of bowel below the colostomy ended about two inches from the anal skin. Barium entered the vaginal vault through a large fistulous opening. There was no communication demonstrated between the rectum and the bladder. On August 26, 1935, the lower portion of the rectum was brought to the surface in the midline of the perineum slightly posterior to its normal position after the method described by Rizzoli. The perineal sphincters seemed to be satisfactorily developed. The levators ani muscles were brought together in the midline. Urologic studies made subsequent to this operation revealed that the left ureteral orifice was normal in position and size and that the left kidney was apparently normal. The right ureteral orifice could not be demonstrated. Pyelograms made by the intravenous method revealed a normally functioning left kidney. There was very slight filling of the right kidney pelvis, but it was impossible to visualize the lower third of the right ureter. The internal sphincter of the bladder seemed to be defective on the right side, and in spite of efforts made to train the child, a constant dribbling of urine continued. The anal opening seemed satisfactory except for contraction because of scar tissue formation. The colostomy has not been closed because an effort will be made to give urinary control by plastic operation, probably by transplantation of the gracilis muscle. The general condition of the patient is greatly improved.



Cases 5 & 6

This diagram represents the type most commonly encountered in the female. In case 5 the opening of the rectum into the vagina was near the vaginal orifice. In case 6 it was near the vault of the vagina.

Case 6. S. L., female. Born Dec. 2, 1930. The only malformation was the absence of the normal anus. There was a dimple present at the normal site of the anus. The rectum opened into the posterior vaginal wall just inside the introitus. It was necessary to dilate this opening on several occasions to overcome a tendency to constriction. Plastic operation is contemplated at a later date.

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DISCUSSION

Dr. Eben J. Carey, (Milwaukee): The excellent paper presented by Dr. Seeger emphasizes many problems from the standpoint of mechanical development, particularly the gastro-intestinal tract. It is impossible to consider one isolated region of the gastro-intestinal tract in development. If we can visualize the embryo at about the fourth week of intra-uterine development, we have an organism with an outer tube, known as the ectoderm, the entoderm, the inner tube. Between the two is the source of intermediate jelly-like matter called the mesoderm. The inner tube in the growth forms a foregut, midgut and hindgut, and is practically a straight tube.

One of the problems of the primitive gastro-intestinal tract, or foregut, midgut and hindgut is to find openings with the outside, the front end has to break through certain indentations from the outer layer known as the stomodeum, which means perfect alignment between the foregut and inner tube and outer tube that forms the invagination. The same problem is presented to the hindgut when it tries to break through to the outside. An invagination or dimpling of the ectoderm or outer skin layer, attempts to align itself with the inner tube. The inner tube is attempting to keep alignment with the little invagination of the ectoderm which we call the anal canal.

Many things can upset the perfect alignment of the mechanism of growth. We may have a persistency of membrane in the front known as the pharyngeal membrane. There may be a persistency because of arrest of development leading to failure of the membrane to disappear known as the anal membrane.

As embryologists, we know little in regard to the malformations. There are many theories. Mall, of Johns Hopkins, in studying the malformations, concluded inflammation of the inner lining of the uterus led to these malformations. Toxic products will tend to cause a reduction in the rate of cell multiplication known as arrest of development.

The simple tube has to go through many changes in order to form the gastro-intestinal tract we possess. It has to rapidly elongate in length due to the rapid cell multiplication of the inner tube. Another little outer tube grows around the gastro-intestinal tract from the mesoderm, not so rapidly as the inner tube. There must be absolutely perfect balance in growth rate of the two regions from the fore to aft of the embryo. Anything that upsets usual development in one partly upsets development in some other part of the embryo, although there may be localized arrest of development.

One of the fundamental principles in embryology as far as the gastro-intestinal tract is concerned is that the straight tube begins to grow rapidly in length. Since it is confined by an outer tube, there is only one way to grow rapidly in length and that is by flexion. The inner tube of the gastro-intestinal tract does not grow as a straight line, like you would fire a ball or bullet out of an ordinary type of shotgun but more or less grows the same way a bullet is fired out of a rifle, in a definite spiral-like manner. As a consequence, we can get upsets of the tube growing as a left or right hand end spiral.

In getting the normal development of the intestine and colon, we find that in the spiral twist the large bowel grows ventrally or to the front of the small bowel and over to the right downward; whereas the small bowel grows dorsally or to the rear and to the tail end of the embryo and to the left.

This particular division of the gastro-intestinal tract is dependent on another factor of partition formation. In lower animals the caudal end of the gut forms a large sac that retains the contents and expels them from three different regions. One from the large bowel, the fecal material, another the urinary tract, and another from the genital system, the genital products, in amphibians, reptiles, birds and lower forms of egg-laying mammals. This remains as a definite functional organ that receives all three of the products, whereas in the higher animals, including man, a partition process takes place dividing the cloaca into three parts.

Anything can cause failure of development of this highly intricate specialized partition, as brought out by Dr. Seeger. The importance of embryology to the clinician is that when he sees these cases he recognizes possibilities and probabilities of malfor-

mation of development, and frequently gets leads to malformations in other parts of the body.

Dr. F. Gregory Connell (Oshkosh): These papers by Dr. Seeger, Dr. Carey and the previous speaker, Dr. Campbell, constitute a symposium upon congenital deformities that does not leave much to be added; but they may serve to emphasize certain facts such as: That we are fearfully and wonderfully made, that the surprise is not that major developmental defects occur, but that they do not occur more often; and that probably comparatively minor defects in the smaller structures and organs do occur, with much more frequency than is suspected; such as unsuspected variation in the number of vertebral bodies, and as the abnormalities resulting from deficient, or excessive, developmental, migration, rotation and descent of the ileocecal region within the peritoneal cavity. All of which leads to the suspicion that, perhaps, such differences as the *hypo-* and *hypersthenic* individuals and the occurrence of "constitutional inadequacies" may be due to more or less intangible, invisible, unrecognizable variation in embryologic development of the individual, which may have either a direct etiologic influence in many chronic conditions, and perhaps an indirect influence upon certain acute diseases.

With imperforate anus or rectum, the diagnosis, at least, is easy; if not discovered at birth, an attempt to take a rectal temperature in the absence of bowel movement will soon reveal the condition. As to the extent of the defect and location of the obliterated bowel, the inverted posture with x-ray is an important assistance. In only one instance have I tried this maneuver, the infant was only two hours old and it failed to visualize the blind end. In older cases, as in Dr. Seeger's beautiful demonstration, the help will be material.

The treatment may be divided into two stages, with different objectives: First, to save life, establish patency of intestinal canal. Second, to make life more comfortable, establish sphincter control.

If imperforate anus, the treatment is simple incision. If imperforate rectum, perineal incision (with placebo anesthesia) will allow dissection of the sacral concavity where the distended cystic blind end of hindgut is usually found. If not found in the pelvis, laparotomy and colostomy will be necessary, but this should, if possible, be avoided because of its high mortality in infants, despite sterile intestinal contents.

Multiple deformities are common (in one seemingly very favorable case, autopsy after death from pneumonia showed poly- and syndactylism, patent foramen ovale, patent urachus, deformity of lung).

Rectovesical and rectourethral and rectovaginal fistulae are common.

At 5 to 7 years of age, sphincter ani function may be reëstablished by some plastic procedure, such as: Gersuny's twist, gluteus maximus muscle plastic and, in favorable cases, utilization of a persistent sphincter ani, as has been well emphasized by Dr. Seeger. A preliminary prophylactic enterostomy is indicated.

Dr. Seeger's case reports are most interesting to the profession and very encouraging to the parents of these unfortunate children.

Allergy Study*

By WILLIAM A. MOWRY, M. D.
Clinical Professor of Medicine, University of Wisconsin, Madison

SOMEONE has likened the study of an allergic disorder to the detection of a criminal as portrayed in the modern mystery story. The comparison is not inept. Many of us are familiar with the standard plot of a murder mystery—the crime itself, the arrival of the detective, the investigation of the victim's past life, the careful questioning of the many suspects, the clues innumerable, or otherwise, often misleading, and the narrowing down of the evidence until the murderer is discovered. Frequently he or she is the one toward whom the least suspicion has been directed.

Let us then follow a somewhat similar plan in the investigation of a suppositious case of allergy. About September 1, no particular year, you are called, usually after midnight, to see a patient who "can't get his breath." Not forgetting epinepherine, because of past experience, you make haste. You find the patient in a chair bending forward in obvious respiratory distress. There is an audible whine upon each expiration. He is cold and clammy, and perhaps slightly cyanotic. Your suspicions are confirmed. He is attacked by asthma. Is it bronchial or cardiac? Examination indicates no apparent evidence of the latter, but you find numerous sonorous expiratory rales in his chest, and probable hyperresonance. You conclude that some one or several of the allergens have gotten in

* Presented before Ninety-fifth Anniversary Meeting, State Medical Society of Wisconsin, Madison, Sept. 1936.

their nefarious work. Forehanded as you were in bringing epinephrine, you are able to relieve the attack, and shortly the victim breathes comfortably.

He is able to tell you that he experienced a similar episode—his first—about a year ago, in September or in late August, not particularly severe, occurring shortly after he had returned from a drive in the country. Following this he noticed shortness of breath several times within the next two weeks, and during the past winter, on two occasions, when sleeping in his brother's home in another city, he had been kept awake because of wheezing and an irritating cough.

You ask him if he has ever been troubled with summer colds; if he has ever had hives or eczema. He replies that his mother says he had a breaking out on his face, arms, and legs during early childhood which lasted several months, and which disappeared after the family physician suggested that he eat no eggs. He does not care much for eggs, rarely eats them, because he thinks they may be the cause of hives which he has occasionally. Ever since he was fifteen—he is now twenty-five—he has had a cold every summer usually beginning sometime in August and lasting until the middle or latter part of September. With these colds he has itching of his eyes, nose, roof of his mouth, and profuse nasal discharge. These symptoms rarely occur during the winter although he complains of much stuffiness of his nose throughout the entire year. You elicit the information that the patient's mother has always had sick headaches and that his father's brother, when living on a farm, had wheezing and cough, which disappeared after removal to a large city. The patient is married and has a two-year-old son who has an irritating skin rash in the winter which the mother thinks comes after the administration of cod liver oil.

While the patient is answering your queries, you notice the two plump pillows on his bed. His wife tells you, with pride, that they are filled with goose feathers, and belonged to her grandmother. The mattress is a spring one, probably stuffed with cotton or kapok. On the dresser is a large can of sweet smelling talcum powder, and a similar scent is noticed in the hand soap. You suggest that the patient come to your office the next day for necessary study. As you depart, you see a spaniel in the hall and a canary in the living room. There is a large oriental rug on the floor beneath which, as you turn it back, you find a thick felt pad. Some of the furniture is apparently upholstered in mohair.

Driving home, you mentally review the case: The history of attacks a year ago and now, and the summer colds point to the ragweed group of pollens as the probable factor in these episodes. You recall the persistent congestion in his nose. He may be sensitive to feathers and to orris. You remember the ancient goose feather pillows and the canary, also the pleasant odor of the powder and soap. The camel and goat hair in the oriental rug, the mohair—also goat—upholstering, and the cow hair in the felt rug pad may be trouble-makers. Even though he eats few eggs, there may be enough egg protein in cakes, custards, and puddings to aggravate the nasal condition; and just before going to sleep, you decide to stop conjecturing and wait until the patient can be thoroughly studied and the necessary laboratory procedures employed.

The next morning he arrives promptly. He has no trouble in breathing, but says he thinks that he has the worst summer cold he has ever experienced. His looks do not belie his statement. His eyes are injected, the lids appear swollen, he sneezes violently at intervals, and uses his handkerchief continually. Examination of his nose reveals pale, boggy mucous membranes, and a polyp is seen in each nostril. There are still occasional wheezing rales in his chest. A blood count shows a slight increase in the number of white blood cells over the normal, and there are twelve per cent eosinophiles.

You take a detailed history, perhaps on a special form, of the now definitely assumed allergic condition. Besides the information gleaned the night before, even more exact data are obtained. You learn that in his brother's house is a stuffed deer head and a kitten, with neither of which does the patient come in contact when at home. You suggest that a series of skin tests be done, and in-

form the patient that it will take two or three days to complete them. Time-consuming as these are, this is not the only reason for requiring several visits to the testing laboratory. If he shows marked reactions, as expected, to various pollens, epidermals, emanations, and foods, he may experience an aggravation of his symptoms if too many tests are done at one time.

Upon completion of the tests, you find he has shown positive reactions by the scratch method manifest by an itching wheal and surrounding erythema to oak tree pollen, several of the grass pollens known to be present in his vicinity, and even more marked to the ragweed group of pollens. He also exhibits reactions to goose and canary feathers, goat, dog, cat, cow, and deer dander, orris root, house dust, and silk. He shows the usual non-specific reaction to carp and tuna fish, and minor or suspicious ones to egg, wheat, milk, and numerous other food proteins.

You now endeavor to protect the patient from the recurrence of the seasonal pollen asthma and hay fever by administering inoculations of rag weed pollen extract in very small amounts daily or on alternate days during the remainder of the weed pollen season. Usually this is definitely helpful, and your treatment is probably supplemented by the use of ephedrine locally in the nose and by mouth. You tell him to cover his feather pillow with an allergen-proof encasing. You advise that the family use only soap and cosmetics which contain no orris root. You request him to give away the spaniel and canary. You ask him to collect dust from his pillows, mattress, from under the beds, from the over-stuffed furniture, which is extracted and used for intradermal testing. To this he shows a definite reaction, and you start inoculations with this material beginning with very weak dilutions. He is re-tested intracutaneously to those food proteins showing suspicious reactions, and to such others as you believe may be factors in the production of his asthma, vasomotor rhinitis, or urticaria. You recall he thinks eggs may cause his hives. Because neither scratch nor intradermal testing shows reactions, a leukopenic index for egg is done. Two white blood counts are made with eosinophile at fifteen minute intervals before breakfast, and supposedly normals are established. He is then given two raw eggs, and the same laboratory procedure is carried out at half hour intervals for six counts, with several of these showing around a two thousand decrease in the white blood count from his normal and an increase in eosinophiles. There is now sufficient reason to believe he has a sensitivity to egg protein in spite of the negative skin reactions, and you advise elimination of egg-containing foods from his diet.

Late the following winter, pre-seasonal ragweed pollen desensitization is administered at weekly intervals in increasing doses, unless reactions are experienced in which case the same or smaller doses are given and increased more gradually. Before the advent of the following ragweed season, you are able to reach a fairly high dosage of the specific extract, which dose, or a somewhat decreased one, is administered about every five to seven days during the season. This year, he has no asthma, or perhaps only a very little. His hay fever is not severe, and he may have none at all. Strange to say, his persistent nasal congestion practically disappeared some weeks after the offending allergens were removed from his environment along with the desensitization to his house dust extract. He studiously avoids his brother's house because of the cat and the stuffed deer head. He sometimes has a mild recurrence of nasal symptoms after attending a movie, a dance, or any public gathering. He tells you that he can take small amounts of egg-containing food with rarely an exhibition of the urticaria. You decide to continue his ragweed desensitization according to the perennial method giving him the maximum dosage reached before the beginning of the pollen season at intervals of from three to four weeks until June 1, when weekly inoculations with increased dosage are resumed. The next pollen season he may experience even greater relief, and, as often happens, you feel that desensitization to pollens and house dust has helped his lesser sensitivities.

Common Manifestations

This story is not entirely imaginative. Cases almost identical are seen by the family physician, and, especially the allergist, almost daily. They are not always as easy to solve, and the results ofttimes are less favorable. Various authors state that from seven to twenty per cent of the population evidence some allergic tendency. Such individuals may present any one or several manifestations of hypersensitivity. Seasonal pollenosis or hay fever, spring, early or late summer, caused respectively by tree, grass, or weed pollens, occurs in one out of thirty individuals. Allergic vasomotor rhinitis, perhaps the most common of all these atopic disorders, is traced usually to inhalants, the pollens being frequent offenders, food ingestion, or to such physical agents as heat and cold.

Not uncommon is bronchial asthma, induced by inhalation of pollens or keratinoids, or ingestion of specific foods, or sensitization to certain bacterial proteins, or again to physical allergies.

Certain of the migraine headaches are caused by food or drug proteins, by the inhalation of such epidermals and emanations as feathers, fur dander, silk, orris, Pyrethrum, cotton seed, kapok, and many others, as well as by sensitization to various bacterials. These headaches may be a form of cerebral angioneurotic edema, which, with other manifestations, is not infrequently allergic in type.

Cases of dermatitis, urticaria, and angioneurotic edema are often due to pollens, feathers, furs, and foods; the pollens and keratinoids frequently by inhalation, the foods, of course, by ingestion. In addition, as is well known, many dermatoses are due to contact with almost any organic or inorganic substance, and frequently these can be recognized by applying patch tests. Certain purpurae have been proven by men in our own State to be caused by sensitivity to specific foods. Doubtless numerous gastrointestinal disorders are due to similar sensitization.

However, because an allergic individual exhibits reactions to certain pollens, keratinoids, or foods, it does not necessarily follow that clinical sensitivity exists to all or to any of the reacting allergens. The possibility of inhalation or ingestion of, or contact with, these offending materials must be proven before it can be said that they are the probable causative agents of his particular disorder. Such proof, when obtained, is often almost incredible to the patient. For example, a young lawyer has an occasional asthmatic seizure. The only major reaction is to flaxseed. How does he contact it? He never visits a farm where flaxseed or linseed meal is often a constituent of stock and chicken feed. He is not about a paint shop with its quantities of linseed oil. Perhaps his wife has a hair wave set. She does. He recalls his attacks have been subsequent to her visits to the hair dresser. With flaxseed, a common ingredient of wave set fluid, a source of probable contact is established and later proven.

A woman, ragweed pollen sensitive, experiences sudden violent hay fever during her annual sojourn in the north woods, where she has previously always been symptom-free. Although the criminal ragweed is steadily pushing its way northward due to the automobile and the consequent building of good roads with their wide shoulders, which offer the best possible conditions for its propagation, there is still not enough ragweed pollen produced in these regions to be a serious menace. Why the symptoms on a particular day? The ragweed pollen count, two hundred miles southward, was high the day before. It is known that the microscopic pollen granules are often carried seemingly impossible distances by a vigorous wind as is shown in this not uncommon instance.

Conclusion

The suppositious case is presented with the idea of stressing, after knowledge or suspicion that allergy plays a role in any condition, the importance of an extensive and detailed study of the patient, his disorder, possible familial allergies, his individual reactions to the various methods of testing, and the correlation of these with his environmental contacts and diet. In other words: know your patient.

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« « » EDITORIALS » » »

The Nobel Prize

THE frontier, like the horizon, constantly recedes from the observer.

The 1936 Nobel prize, joint award in medicine to Sir Henry Hallett Dale of London and Professor Otto Loewi of Graz, Austria, emphasizes this fact.

In the work of these, and of similar investigators, one sees a refinement of methods in a search for fundamentals in the problems of life and in the causes of its origin, variations and cessation.

The investigations of the ancients were naturally concerned with the more simple, tangible, and fixed aspects of gross anatomy that could be answered by dissections. After many centuries attention gradually shifted to the abnormal, the diseased, morbid anatomy (pathology) where the answers could be found in the autopsy room.

Then, with the discovery of the microscope, the minute structures of organs were revealed to man; and after histology came cellular pathology, all of which deal with end processes of disease, or degeneration, with dead, fixed tissues.

In due time attention was next diverted to living organs and structures, and to the purposes and regulations of the functional activities of the component parts of the body. At first the major, visible, and vital activities (ingestion, egestion, respiration, circulation, absorption, reproduction, etc.) were studied, and later (as in the development of anatomy from macroscopic to microscopic) the more intangible, minute changes in the ultimate cell and in the body fluids were, and still are, being investigated.

The work of Pasteur emphasized the importance of bacteria, and the sequence of infection and inflammation, with resultant destruction or repair, and the work of Lister initiated attempts to prevent infection.

After the vital phenomena have been studied from the anatomic, the histologic and the physiologic point of view, the remaining problems chiefly concern the cause, or causes, of the various functions of life in health and disease.

This most recent step has been a gradual extension of interest from the groups of cells (organs and structures) to the activities of the individual cells with their ever-changing content and environment, and of the fundamentally vital cell *membrane* which separates the contents from the surroundings, all of which are included, more or less accurately,

We Wish You A Happy Holiday Season

under the heading of physiological chemistry. Such studies have attracted much attention and seem to be clearing up many heretofore unanswered questions. Naturally an enormous literature has grown very rapidly.

The basic works of Dale in so-called autopharmacology and of Loewi in the chemical mediation of nerve impulses (vagusstoff) which deservedly won the Nobel prize of this year, have been augmented by important contributions by Cannon of Harvard, Fulton of Yale, Grasser of the Rockefeller Institute, Peterson of Illinois, Hill of London, and many others, all of which presents the potentialities of a new era in the development of the study of man and of medicine and therefore demands serious attention. F. G. C.

Mandelic Acid Therapy In the Treatment of Urinary Tract Infections

THE introduction of a new drug in the therapy of urinary tract infections is always received with great enthusiasm in most quarters since the treatment of these infections is generally so disconcerting and the results generally unsatisfactory. Most of the drugs introduced are sponsored and advocated by the firms manufacturing them and must be accepted by the professions until their clinical value is established.

The introduction of mandelic acid by Rosenheim, in the treatment of urinary tract infections, which came about in his efforts to overcome certain objections to the ketogenic diet is a recognized therapeutic procedure, and, as has been pointed out, its efficacy depends upon the production of and the presence of a sufficient concentration of beta-oxybutyric acid with the urine at a certain degree of acidity, the action of the acid being bactericidal and bacteriostatic. Sufficient concentration of this acid cannot always be obtained by dietary means, and efforts to supplement it by its administration were not satisfactory, since under normal metabolic conditions it is completely and rapidly oxidized in the body.

Rosenheim employed several of the acids of this series attempting to find one which was not so easily oxidized, was non-toxic in adequate dosage, and would be excreted in the urine unchanged. Mandelic acid was the one chosen, and he employed the sodium salt for administration. The clinical results were very satisfactory.

Again it is necessary for the urine to be acid to a certain degree. In some cases the drug will produce this degree of acidity, in others it is necessary to administer other acidifying agents such as ammonium chloride and nitrate; the acidity must be checked by a suitable indicator, and the common litmus paper is not satisfactory. Unless the proper acidity is obtained, satisfactory results cannot be expected.

Since the majority of urinary tract infections are due to the colon bacillus group, the members of this group are definitely sensitive to its action, exceptions being made for the Proteus and aerogenes strains which are resistant.

Impairment of kidney function may follow its administration; also gastro-intestinal disturbances. Its employment, therefore, must be supervised. The sodium and ammonium salts are the most commonly used and obtainable through the regular drug channels.

The drug is expensive but not more so than the various dyes that have been introduced, and from the available clinical reports the results are much superior. The clinical reports are so encouraging as to warrant continued clinical trial. G.H.E.

Rosenheim, M. L.: Lancet, May, 1935.

.... THE PRESIDENT'S PAGE ....

Thirty-Three Years of Service

NOVEMBER and December bring us to that time of the year when our thoughts turn to making some recognition of our friendships, so it was peculiarly appropriate that three weeks ago it was the privilege of your President to be present at a dinner given for Dr. Rock Sleyster honoring his thirty-three years of continuous service to the organized medical profession of this State and Nation.

In speaking on that program I prefaced my remarks by stating that I was appearing by no mandate of the Society,—by no vote of any of its bodies; yet I was confident that had a vote been taken on the question of my appearance, it would have been unanimously in the affirmative.

Doctor Sleyster typifies the sacrifice of years of arduous service that have made it possible for medicine to speak with one voice in the determination of the constantly changing relations of practice during a long period in which the social aspects of medicine have become of increasing moment and importance. It is true that to few of us are given the opportunities to serve so richly, but all of us have the opportunity to serve.

It is significant to me that this man started his service as secretary of one of our own county medical societies. As I read the early records of that society it is significant to note the change that he alone brought about in that society during his extended term of office.

The fifty-one county medical societies that jointly hold the entire membership of our State organization, now numbering close to 2,300 members, are literally the vertebrae of medical organization in this State. Because medicine is of itself making constant advances and progress, there is never a time when we have not been in a period of transition. There are times, however, when the trends of that transition are of great importance lest the public lose greatly by falling into "optimistic errors." We are now in such a period.

If we are to find ourselves a year hence, or two years hence, at a point higher on the ladder of service than that at which we now rest, it will be because each of us, whether an officer or not, has been willing to contribute to public education and legislative understanding.

In a democracy it is easy to fall into the error of thinking that one can do but little and that one's influence will be but slight where votes, for instance, are counted by the millions. Yet all of us noted in the daily paper recently that in the congressional election in the neighboring state two opposing candidates each polled exactly 57,569 votes. Unusual? Yes, but not to the extent that this one example does not serve to emphasize the necessity for all of us to do our share in informing legislators, for instance, of the merits and demerits of legislation widely affecting the public health. The average contested measure in this field was accepted or lost, in either House, by a margin of from but one to ten votes.

So do I feel that it is fitting this month to devote this page to recognize a spirit, the wide emulation of which promises success for the future health of our people and widest opportunities for the profession to advance itself, both individually and collectively.

If we are to control our destinies, each must give of aid in our joint program.

For myself and all officers I extend to each of you a most cordial greeting for the Christmas season and best wishes for the year to come.

S. E. Gavin

Society Proceedings

Ashland—Bayfield—Iron

New officers for the Ashland-Bayfield-Iron County Medical Society have been reported as follows:

President: Dr. F. D. Weeks.
Vice-President: Dr. R. O. Grigsby.
Secretary-Treasurer: Dr. J. W. Prentice.
Censor: Dr. C. J. Smiles, to succeed himself.

Barron—Washburn—Sawyer—Burnett

Dr. H. H. Ainsworth will serve as president for the Barron-Washburn-Sawyer-Burnett County Medical Society for the next year. Dr. S. O. Lund is vice-president; Dr. D. L. Dawson, secretary; Dr. A. S. White, delegate; and Dr. H. H. Schlomovitz, alternate.

Clark

The annual business meeting of the Clark County Medical Society was held on October 29, and the following officers were elected for 1937:

President: Dr. A. L. Schemmer, Colby.
Vice-President: Dr. G. G. Shields, Abbotsford.
Secretary-Treasurer: Dr. M. V. Overman, Granton.
Delegate: Dr. H. H. Christofferson, Colby.
Alternate Delegate: Dr. M. C. Rosekrans, Neillsville.

Columbia—Marquette—Adams

The Columbia-Marquette-Adams County Medical Society met with the Auxiliary at a 6:30 dinner at the Friendship Hotel on November 17. Guests from Waushara County were Dr. T. J. Buckley, of Coloma, and Dr. J. P. Wild, of Hancock.

Dr. G. W. Henika, of the State Board of Health, gave an address on tuberculosis and tuberculin testing of school children. Dr. J. J. Horwitz, of Milwaukee, discussed the subject of bleeding before the menopause.

The Society voted to appoint a committee to meet with the county board to discuss the question of a county nurse. The next meeting will be held at Randolph on December 15.

Dodge

The Dodge County Medical Society met at the Lutheran Deaconess Hospital, Beaver Dam, on October 29. An interesting showing of medical movies was followed by the election of officers for 1937: Dr. W. E. Bargholtz, of Reeseville, will serve as president; Dr. A. J. Hebenstreit, of Juneau, as vice-president; and Dr. M. Temkin, of Beaver Dam, as secretary.

The November meeting was held at the Legion Memorial Building in Beaver Dam on the twenty-fourth. Dr. Max J. Fox, of Milwaukee, who gave a most interesting talk on various aspects of streptococcal infections, was the principal speaker. A luncheon was served following the meeting.

Douglas

At the annual meeting of the Douglas County Medical Society on October 7, Dr. R. C. Smith, of Superior, was elected president; Dr. E. A. Myers, vice-president; and Dr. S. H. Perrin, secretary and treasurer. Dr. J. R. Goodfellow will serve on the Board of Censors. Dr. H. J. Orchard was elected delegate to the annual meeting of the State Medical Society of Wisconsin, and Dr. C. W. Giesen was elected alternate delegate.

Eau Claire—Dunn—Pepin

The Eau Claire-Dunn-Pepin County Medical Society, following their first fall meeting on October 26, announced the election of officers for 1937, as follows:

President: Dr. E. L. Mason, Eau Claire.
Vice-President: Dr. R. F. Werner, Eau Claire.
Secretary: Dr. S. L. Henke, Eau Claire.
Censors: Dr. W. R. Manz, Dr. Nels Werner, and Dr. A. L. Payne, all of Eau Claire.
Delegate: Dr. J. C. Baird, Eau Claire.
Alternate Delegate: Dr. Oscar Knutson, Osseo.

Forest

The officers elected for 1937 by the Forest County Medical Society are:

President: Dr. G. W. Ison, Crandon.
Vice-President: Dr. O. S. Tenley, Wabeno.
Secretary-Treasurer: Dr. R. H. Beech, Laona.
Delegate: Dr. G. W. Ison, Crandon.
Alternate Delegate: Dr. O. S. Tenley, Wabeno.

Grant

Dr. M. W. Randall, of Blue River, was elected president of the Grant County Medical Society at a meeting held in Lancaster on October 23. Speakers were Judge R. D. Walker; Dr. R. E. Burns, of Madison, and Dr. D. J. Ansfield, of Milwaukee, who conducted a clinic for crippled children there the following day.

Other officers elected for the next year are: Dr. J. H. Fowler, vice-president; Dr. M. B. Glasier, secretary and treasurer; Dr. E. C. Howell, delegate; Dr. C. H. Andrew, alternate delegate; and Dr. E. M. Houghton, Dr. C. M. Schuldt, and Dr. E. C. Howell, trustees.

Jefferson

Members of the Jefferson County Health Officer's Association, a new organization in that county, were guests of the Jefferson County Medical Society at a dinner meeting at the Jefferson House, Jefferson, on October 22. Among the speakers were Dr. C. A. Harper, state health officer, and Dr. C. N. Neupert, his assistant. Doctor Harper praised the efforts being made in Jefferson County to eliminate contagious diseases as far as possible, and complimented the health officers in the county on the organization of this association.

Lafayette

At a meeting of the Lafayette County Medical Society on October 22, the Lafayette County Health Clinic was organized. The purpose of this clinic is that of preventive medicine, and its services will be made available to every child in Lafayette County. An educational program will be inaugurated showing the advantages of preventive work in the field of tuberculosis, and following this the members will take up the subject of immunization for diphtheria and smallpox.

Manitowoc

At the last meeting of the Manitowoc County Medical Society on November 19, Dr. A. H. Heidner, councilor for the fifth district, discussed some of the more important problems before the profession.

The results of the election of officers for the next year were reported as follows:

President: Dr. William E. Donohue, Manitowoc.
Vice-President: Dr. Joseph May, Maribel.
Secretary-Treasurer: Dr. N. C. Erdmann, Manitowoc.
Delegate: Dr. R. W. Hammond, Manitowoc.
Alternate Delegate: Dr. A. P. Zlatnik, Two Rivers.

Marathon

The following new officers have been elected by the Marathon County Medical Society to serve during the next year:

President: Dr. H. H. Christensen.
President-Elect: Dr. J. M. Freeman.
Secretary: Dr. G. H. Stevens.
Treasurer: Dr. R. H. Juers.
Program Committee:
Dr. R. F. Fisher, chairman.
Dr. F. H. Frey.
Dr. E. P. Ludwig.
Legislative Committee:
Dr. I. M. Addleman, chairman.
Dr. W. C. Frenzel.
Dr. M. L. Jones.
Board of Censors:
Dr. P. Z. Reist, chairman.
Dr. V. E. Eastman.
Dr. H. R. Fehland.
Delegate: Dr. S. M. B. Smith.
Alternate Delegate: Dr. E. E. Flemming.

Outagamie

Dr. C. D. Boyd, director of the Riverview Sanatorium, was host on October 29 at a dinner meeting of the Outagamie County Medical Society at the sanatorium. The program included talks by Dr. R. H. Stiehm, Madison, on the early diagnosis of tuberculosis and Dr. W. H. Oatway, Madison, on modern diagnosis and therapy.

The following officers have been elected for 1937:

President, Dr. R. V. Landis, Appleton.
Vice-President, Dr. A. B. Leigh, Kaukauna.
Secretary-Treasurer, Dr. M. E. Swanton, Appleton.
Censor, Dr. E. F. Mielke, Appleton.
Delegate, Dr. A. E. Rector, Appleton.
Alternate Delegate, Dr. R. T. McCarty, Appleton.

Dr. Edward A. Oliver, associate clinical professor of dermatology of Rush Medical College, Chicago, gave a talk illustrated by lantern slides at the meeting of the Society on November 12 at the Conway Hotel. His subject was "Dermatological Problems of the General Practitioner."

Polk

The monthly meeting of the Polk County Medical Society, at which eighteen members were present, was held at the home of Dr. George B. Noyes on October 22. Mr. Earl Nelton, attorney from Balsam Lake, was a guest of the Society. After a dinner at 7:30 o'clock, annual reports were read and officers elected for the next year.

Dr. W. C. Andrews will serve as president, Dr. H. C. Caldwell as vice-president, and Mr. E. C. Swenson as secretary-treasurer. Dr. R. G. Arveson will be delegate to the annual meeting of the Society, and Dr. A. N. Nelson was elected alternate. Dr. T. O. Ries is a member of the Board of Censors.

On November 19 members of the Society were guests of Dr. W. C. Andrews, of Frederic. The program included two interesting talks by physicians from the University of Minnesota. Dr. Moses Barron discussed "Barbital and its Derivatives," and Dr. Cecil Watson, "Heart Therapy."

Portage

Dr. H. M. Coon was elected to serve his fifth term as president of the Portage County Medical Society at their annual meeting held on October 20 at the Hotel Whiting, Stevens Point. Dr. E. E. Kidder was also re-elected secretary-treasurer, and likewise begins his fifth term.

Dr. R. W. Rice was re-elected vice-president, and Dr. Ferdinand R. Krembs was chosen to fill a three-year term on the Board of Censors. Other members of this Board are Dr. E. P. Crosby and Dr. Erich Wisiol. Doctor Kidder was elected delegate to the state convention to be held next September in Milwaukee, and Dr. H. P. Benn was elected alternate.

Doctor Kidder gave a report of this year's state convention held in Madison in September, and also

reported on a recent meeting in Milwaukee of the Committee on Health and Public Instruction, of which he is chairman.

Racine

At the meeting of the Racine County Medical Society on October 22, the following officers for the next year were elected:

President: Dr. R. M. Kurten.
Vice-President: Dr. R. W. McCracken.
President-Elect: Dr. Frank B. Marek.
Secretary-Treasurer: Dr. A. M. Lindner.
Delegate: Dr. H. B. Keland.
Alternate Delegate: Dr. T. C. Hemmingsen.
Censor: Dr. R. Thackeray.

Rock

Thirty members were present at the annual meeting of the Rock County Medical Society which was held at the Hotel Hilton, Beloit, October 27. Dr. T. O. Nuzum, of Janesville, presented a paper, illustrated with lantern slides, on "The Diagnosis of Encapsulated Intrapleural Effusions."

The president for the year 1937 is Dr. W. O. Thomas, Clinton; vice-president, Dr. G. W. Belting, of Orfordville; secretary-treasurer, Dr. C. R. Gilbertsen, of Janesville; delegate, Dr. W. J. Allen, of Beloit; and alternate delegate, Dr. W. A. Munn, of Janesville. Dr. W. T. Clark was elected to the Board of Censors.

Rusk

The Rusk County Medical Society elected officers on October 7 for the coming year. Dr. W. F. O'Connor, of Ladysmith, was elected president, and Dr. M. L. Whalen, of Bruce, secretary-treasurer.

Dr. G. Hoyme, of Eau Claire, addressed the members of the society and the sisters and nurses of St. Mary's Hospital on the subject of spastic colon.

Trempealeau—Jackson—Buffalo

Eighteen members of the Trempealeau-Jackson-Buffalo County Medical Society were entertained at a dinner at Black River Falls on October 22 by Dr. Irwin Krohn and Dr. Robert Krohn.

Dr. E. A. MacCornack, brother of Dr. R. L. MacCornack, of Whitehall, who is a medical missionary in Peru, was the principal speaker of the evening. He gave an interesting talk on amoebic dysentery.

Vernon

On October 27 the members of the Vernon County Medical Society met for the election of officers for 1937. They are as follows:

President: Dr. W. H. Remer, Chaseburg.
Vice-President: Dr. C. E. Lauder, Viroqua.
Secretary: Dr. R. S. MacKechnie, Hillsboro.
Delegate: Dr. W. M. Trowbridge, Viroqua.
Alternate Delegate: Dr. W. H. Remer, Chaseburg.

Washington—Ozaukee

The Washington-Ozaukee County Medical Society at its meeting on October 29 elected Dr. P. M. Kauth, West Bend, president for the next year; Dr. Porter Blanchard, Cedarburg, vice-president; and Dr. R. S. Fisher, Allenton, secretary-treasurer. Dr. J. G. Hoffmann, Hartford, is delegate; and Dr. O. J. Hurth, Cedarburg, is alternate delegate.

An interesting meeting was made more so by a paper by Dr. H. J. Farrell, of Milwaukee, on "Common Skin Diseases," and a discussion by Dr. E. K. Steinkopff, of Pewaukee, on the recent activities in tuberculin testing in the schools with interpretation of the test.

Winnebago

Dr. J. P. Canavan, of Neenah, was elected president of the Winnebago County Medical Society, succeeding Dr. A. G. Koehler, of Oshkosh, at the dinner meeting on October 29 at the Hotel Raulf, Oshkosh.

Dr. H. J. Haubrick, of Oshkosh, was elected vice-president, succeeding Doctor Canavan. Dr. E. B. Williams, Oshkosh, was elected secretary-treasurer to succeed Dr. M. C. Haines, Oshkosh.

Dr. M. N. Pitz, of Neenah, and Dr. A. G. Koehler and Dr. J. E. Stein, both of Oshkosh, were elected censors. Dr. R. B. Rogers, of Neenah, was elected delegate to the state convention. The alternate delegate is Dr. J. M. Conley, of Oshkosh.

Besides the business meeting the program included talks by Dr. A. G. Schutte, Dr. C. C. Schneider, and Dr. H. W. Shutter, all of Milwaukee. About fifty physicians were present.

First Councilor District

Dr. A. A. Hoyer, of Beaver Dam, was named president of the First Councilor District of the State Medical Society of Wisconsin at the annual meeting in Watertown on November 12. The district comprises the counties of Dodge, Jefferson, and Waukesha.

The scientific program, which was followed by dinner and entertainment at the Green Bowl, included the following speakers:

The Functional Interrelationship of the Endocrine Glands—Dr. E. L. Sevringhaus, Madison.
Gynecological Problems of Endocrine Origin—Dr. Ralph Campbell, Madison.
Psychiatric Problems of Endocrine Origin—Dr. Annette Washburne, Madison.
Endocrine Therapy with a Discussion of Preparations, Dosages and Results — Dr. E. L. Sevringhaus.

Ninth Councilor District

The autumn meeting of the Ninth Councilor District Medical Society was held at Wausau on the afternoon and evening of November 19. The pediatric and cardiac clinic conducted by Dr. J. E. Gonce and Dr. Chester M. Kurtz, of Wisconsin General Hospital, at St. Mary's Hospital was followed by dinner

at the Hotel Wausau. In the evening Doctor Gonce gave a talk on "The Present Status of Vaccine and Serum Therapy in Acute Infectious Diseases of Children," and Doctor Kurtz on "Coronary Disease."

Milwaukee Academy of Medicine

Dr. Henry E. Michelson, professor of dermatology, University of Minnesota, was guest speaker at the meeting of the Milwaukee Academy of Medicine on November 17. He talked on "Tuberculosis of the Skin," a subject in which he has had wide experience both here and abroad.

The local speaker, Dr. Oscar Lotz, whose subject was "Modern Concepts of Tuberculin Reaction," is also widely known for his excellent work in the general field of tuberculosis.

Milwaukee Neuro-Psychiatric Society

The members of the Milwaukee Neuro-Psychiatric Society were guests of the Milwaukee Sanitarium, Wauwatosa, on November 19. Dinner at seven o'clock was followed by an address by Dr. Fred Moersch, of the Mayo Clinic, on "Neuronitis."

Milwaukee Oto-Ophthalmic Society

The November meeting of the Milwaukee Oto-Ophthalmic Society was held at the University Club on Tuesday, November 10. Dinner at 6:30 was followed by the following scientific program:

Treatment of Injuries of the Face—Dr. Samuel Salinger, Chicago.

Reflex or Referred Signs and Symptoms of Diseases of the Nose, Throat, and Ear, such as Sneezing, Coughing, Pain, etc., with Some References from the General Literature—Dr. Robert Sonnenscheim, Chicago.

Modern Conceptions of Therapy of Malignant Tumors of the Larynx and Pharynx—Dr. Samuel Pearlman, Chicago.

Milwaukee Society of Clinical Surgery

The scientific program for the meeting of the Milwaukee Society of Clinical Surgery on November 24 at the University Club was as follows:

The Early Diagnosis of Brain Tumors, by Dr. David Cleveland, Milwaukee.
Discussion: Dr. Karl Schlaepfer, Milwaukee.

Surgery of the Heart and Pericardium, by Dr. Claude S. Beck, Cleveland.
Discussion: Dr. Louis M. Warfield, Milwaukee.

The Treatment of Fractures of the Neck of the Femur, by Dr. Hugh McKenna, Chicago.
Discussion: Dr. J. J. Adamkiewicz, Milwaukee.

The Woman's Auxiliary

President—
Mrs. C. A. Harper, 520 N. Pinckney St., Madison
President Elect—
Mrs. Oscar Friske, 932 Bluff St., Beloit
Secretary—
Mrs. Walter E. Sullivan, Shorewood Hills, Madison
Treasurer—
Mrs. Frank W. Pope, 2406 Kinzie Ave., Racine
Public Relations Chairman—
Mrs. I. F. Thompson, 1523 Deane Blvd., Racine
Program Chairman—
Mrs. J. H. Weisberg, 320 E. 7th St., Superior
Hygeia Chairman—
Mrs. H. H. Hull, Brandon
Organization Chairman—
Mrs. Willard Pease, Rio
Archives and Historian—
Mrs. Harry Keenan, Stoughton
Press and Publicity Chairman—
Mrs. F. J. Pfeifer, New London
Parliamentarian—
Mrs. J. Gurney Taylor, 845 E. Glen Ave., Milwaukee
Chairman of Nominating Committee—
Mrs. James Sargent, 2924 N. Stowell Ave., Milwaukee

County News Items

Brown—Kewaunee—Door

The Woman's Auxiliary to the Brown–Kewaunee–Door County Medical Society was entertained on Thursday, October 29, at the home of Mrs. R. L. Cowles, Braebourne, in Allouez. There were seventeen members present.

Mrs. Arthur McCarey, president of the Auxiliary, gave her report of the year's activities as she had given it in Madison. The report of Mrs. D. B. Dana, Kewaunee, a delegate to the state meeting, was read, as Mrs. Dana was unable to attend the meeting.

The members paid tribute to the memory of the late Mrs. Julius J. Bellin, who had been active in the organization for a number of years. They also decided to pledge their support to the Community Chest in the current campaign.

Mrs. E. G. Nadeau, who was in charge of the refreshments, was assisted by Mrs. W. W. Kelly and Mrs. L. D. Quigley. Mrs. J. C. Colignon presided at the tea table.

Columbia—Marquette—Adams

The members of the Auxiliary to the Columbia–Marquette–Adams County Medical Society and their husbands had dinner at St. Savior's Hospital, Portage, on October 6, and at the business meeting the following officers were elected for the next year:

President: Mrs. J. W. MacGregor, Portage.
President-Elect: Mrs. H. E. Gillette, Pardeeville.
Secretary: Mrs. C. J. Radl, Wisconsin Dells.
Treasurer: Mrs. L. V. McNamara, Montello.

At the monthly meeting for November, which was held at the Friendship Hotel, Friendship, on the seventeenth, it was decided that the Auxiliary place six introductory subscriptions to Hygeia in libraries and schools of various towns in the county. The Auxiliary has now placed Hygeia in almost every town in the county represented by an Auxiliary member.

Kenosha

One hundred guests attended the dessert-bridge sponsored by the Auxiliary to the Kenosha County Medical Society at the Woman's Club on September 26. The Social Committee, which consists of Mrs. A. Schlapik, Mrs. H. M. Ripley, Mrs. Theodore Sokow, Mrs. George Schulte, Mrs. W. C. Stewart, and Mrs. E. F. Swarthout, was in charge.

On Friday evening, October 30, the Auxiliary entertained their husbands at a Hallowe'en party at the Terrace Court Apartments. This party, which has become an annual event, was well attended.

On November 2 the monthly meeting of the Auxiliary was held at the home of Mrs. A. Schlapik, with Mrs. Lulu Murphy presiding. Dr. Helen Binnie addressed the group on the early history of medicine. Dr. Margaret Pirsch urged the members to attend the meeting of the Kenosha Civic Council, at which time a plan to create a mental hygiene clinic for children in Kenosha would be discussed by Dr. Gilbert J. Rich, of Milwaukee. Mrs. Joseph Graves, chairman of the Nominating Committee, presented to the members a report of officers for election in December.

Manitowoc

The Manitowoc Auxiliary had a luncheon meeting at the Catholic Center on Wednesday, October 21, at which eighteen were present.

Mrs. Myrtle Burgener, superintendent of Two Rivers Municipal Hospital, who was the guest speaker, gave a very interesting talk on "Hospitalization in Regard to Medicine." Mrs. F. E. Turgason read an article from Hygeia, and Mrs. F. W. Hammond presented selections from Dr. Morris Fishbein's book "Fads and Quackery in Healing."

A report of the state convention was given by Mrs. M. P. Andrews. Plans were made for a party to be given in November, the doctors to be the guests.

Milwaukee

The Woman's Auxiliary to the Medical Society of Milwaukee County held its regular luncheon meeting at the Hotel Pfister on Friday, November 13. There were 258 members and guests present, and the following new members were added to the roll: Mrs. Herbert E. Froede, Mrs. Earl William Martens, Mrs. Hilmar G. Martin, Mrs. Saul K. Pollack, Mrs. Arthur H. Robinson, Mrs. Robert H. Smuckler, and Mrs. Francis J. Stirn.

The program included a greeting by the president, Mrs. William Jermain, and an address by Dr. Walter C. Alvarez, of The Mayo Clinic. His subject was "Why Women Get Nervous Indigestion." Lorna Hooper Warfield, accompanied by Gladys Hewitt, sang three beautiful numbers.

The following committees were appointed:

Auditing Committee:
Mrs. Norbert Enzer.
Mrs. Francis Janney.

Nominating Committee:
Mrs. A. R. Langjahr.
Mrs. Eben J. Carey.
Mrs. J. H. Sure.
Mrs. J. Gurney Taylor.
Mrs. E. F. Barta.
Mrs. R. P. Schowalter.
Mrs. Joseph Lettenberger.

At the annual meeting in December the national officers, Mrs. Robert E. Fitzgerald, president; Mrs. Eben J. Carey, treasurer; and Mrs. J. Gurney Taylor, secretary, will be honored.

Polk

The members of the Woman's Auxiliary to the Polk County Medical Society had dinner on October 22 at the Centuria Hotel, and following this a meeting was held at the home of the president, Mrs. G. B. Noyes. The program, which was in charge of the program chairman, Mrs. H. C. Caldwell, included interesting accounts of recent trips by Mrs. W. C. Andrews and Mrs. J. D. Nicholson.

Reports of the state convention at Madison were given by Mrs. Noyes and Mrs. L. O. Simenstad. At the business meeting it was decided to place Hygeia in the County Normal School and in each of the beauty parlors in the county.

Racine

With the national president, Mrs. Robert Fitzgerald, as guest speaker, the Auxiliary to the Racine County Medical Society held its November session at a luncheon meeting at the Hotel Racine on November 10.

Mrs. J. F. Henken presided for the first time, marking the beginning of a new year. Mrs. Robert Fitzgerald had with her Mrs. Eben J. Carey, of Milwaukee, national treasurer. Mrs. Fitzgerald brought greetings to the Racine Auxiliary from the national organization, and explained the aims and ideals of that group, urging cooperation in the local, state, and national organizations.

Sheboygan

Instead of the regular monthly meeting of the Auxiliary to the Sheboygan County Medical Society, the members entertained their husbands at a seven

o'clock dinner on November 5 at the Guild Hall in Plymouth. Community singing was enjoyed, and, as a special feature, childhood pictures of the doctors were shown on a screen. A prize was awarded to the one recognizing the most pictures.

Washington—Ozaukee

At a meeting in the home of Mrs. P. M. Kauth on October 29, the wives of physicians of Washington and Ozaukee Counties organized an Auxiliary to the Washington–Ozaukee County Medical Society. This will become a branch organization of the State Auxiliary. The following officers for the ensuing year were elected:

President: Mrs. H. M. Lynch.
President-Elect: Mrs. C. C. Stein.
Treasurer: Mrs. E. P. Huth.
Secretary: Mrs. R. S. Fisher.

Guests from the State Auxiliary were Mrs. C. A. Harper, Madison, president; Mrs. W. Sullivan, Madison, secretary; and Mrs. Willard Pease, Rio, who is the present organization chairman. Tea was served following the meeting.

Winnebago

Mrs. E. B. Pfefferkorn, Oshkosh, was installed as president of the Auxiliary to the Winnebago County Medical Society at a luncheon meeting at Stein's in Oshkosh on October 26. Mrs. Pfefferkorn succeeds Mrs. T. D. Smith, Neenah. Other new officers are Mrs. S. D. Greenwood, Neenah, president-elect; Mrs. Henry Kleinschmidt, Oshkosh, secretary; and Mrs. H. L. Baxter, Neenah, treasurer.

Mrs. G. C. Owen, Oshkosh, formerly on the staff of the Boston Children's Habit Clinic, the only one in the United States, talked on child behavior problems. An invitation from Dr. G. A. Hensel, minister and artist at Saukville, Wisconsin, to have luncheon with him on November 5 and see his pictures was accepted.

News Items and Personals

Commemorating thirty-three years of active service in organized medicine, upward of 150 physicians of the State honored Dr. Rock Sleyster, Chairman of the Board of Trustees of the American Medical Association, at a dinner at the University Club, Milwaukee, on November 13. Guests from out of the State included members of the Board of Trustees of the American Medical Association and general officers of the Association.

The testimonial dinner was given under the auspices of the Medical Society of Milwaukee County, and speakers included Dr. Chester M. Echols, President of that Society; Dr. J. Gurney Taylor, Milwaukee; Dr. Charles Gordon Heyd, President of the American Medical Association; Dr. A. W. Rogers, Oconomowoc; Dr. Morris Fishbein, Editor of the Journal of the American Medical Association; Reverend Anthony F. Berens, S. J., Regent of Marquette University School of Medicine; Dr. Olin West, Secretary and General Manager of the American Medical Association; Dr. Stephen E. Gavin, President of the State Medical Society of Wisconsin; and Dr. Eben J. Carey, Dean of Marquette University School of Medicine. Dr. Arthur J. Patek, of Milwaukee, presided.

Dr. Rock Sleyster was Secretary of the Calumet County Medical Society from 1903 to 1909, Assistant Secretary of the State Medical Society of Wisconsin from 1910 to 1913, Secretary from 1914 to 1923, President in 1924, Treasurer from 1925 to the present time, Editor of the Wisconsin Medical Journal from 1918 to 1923, Delegate to the American Medical Association from 1915 to 1926, Vice-Speaker of the House of Delegates of the American Medical Association from 1922 to 1926, Trustee of the American Medical Association from 1926 to the present time, and is now also Chairman of this Board.

DRAMA OF "THE GUARDIANS OF YOUR HEALTH"

Each Tuesday, Wednesday and Thursday the State Medical Society presents "The Guardians of Your Health" over the state-owned radio station WHA, Madison (940). These health messages are broadcast at 9:00 a. m.

The schedule for this month:

Dec. 15—Health Racketeers
Dec. 16—Health Racketeers
Dec. 17—At Home to Safety
Dec. 22—Health Racketeers
Dec. 23—Health Racketeers
Dec. 24—Exploiting the Deaf
Dec. 29—Health Racketeers
Dec. 30—Health Racketeers
Dec. 31—Medicine Marches On
Jan. 5—Health Racketeers
Jan. 6—Health Racketeers
Jan. 7—Will You Escape It?

Charged with practicing medicine without a license, Carl Mechel, 125 East Wells Street, Milwaukee, was fined $100 in district court Thursday. The complaint was filed by Walter Drews, investigator for the State Board of Health.

A testimonial dinner in compliment to Dr. Allan S. White, of Rice Lake, who recently received his fellowship in the American College of Surgeons, was given by the personnel of St. Joseph's Hospital, of which Mother M. Veronica is the superintendent, Wednesday evening, November 4. Guests included staff members, other physicians from surrounding towns, and several lay friends of Doctor White and his family.

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Dr. V. A. Chapman, Milwaukee, went to New York the last week in September to attend the meeting of the American Academy of Ophthalmology and Oto-Laryngology. He sailed on the "Pennsylvania" of the Panama Pacific S. S. Line on October 3 for California by way of the Panama Canal, stopping at Havana, Cuba; Panama City, Panama; Acupulco, Mexico; and San Diego, California. Doctor Chapman has opened an office in Palm Springs, California, where he will practice for the next six months.

—△—

Dr. J. H. Karsten spoke at a meeting of the Horicon Rotary Club on October 26. His subject was recent developments in the treatment of cancer.

—△—

Dr. H. W. Christensen, who has been with the Hess Clinic in Mauston, has resigned his position, and is now associated with Dr. R. F. Fisher in Wausau.

—△—

On November 1, Dr. F. G. Zietlow, formerly of Genesee Depot, opened offices in Brillion for the practice of medicine.

—△—

Dr. R. R. Rath and Dr. M. V. Overman, of Granton, have announced their association in the Rath-Overman Clinic.

BIRTHS

A daughter to Dr. and Mrs. W. W. Ford, Green Bay, on October 21.

MARRIAGES

Dr. Clifford F. Broderick, of Stevens Point, and Miss Ruth Potton, of Milwaukee.

DEATHS

Dr. Neils A. Peterson, of Soldier's Grove, who had been in practice there for thirty years, died October 30 at his home after a long illness. He was born in Soldier's Grove in 1877 and was graduated in 1901 from the Milwaukee Medical College.

Doctor Peterson was a member of the Crawford County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

Dr. Phillip B. Amunson, of Mondovi, founder of the city hospital and a practicing physician in that city for forty years, died of heart disease on October 14. He was born in 1873 and was graduated from the Rush Medical College in 1895. He was physician for the Buffalo County Exemption Board during the World War, being its chief examining physician, and he also served as city health officer of Mondovi for thirty-five years.

Surviving are his widow, one son, and two daughters.

Dr. James G. Paschen, Milwaukee physician and surgeon, was born in Milwaukee in 1885 and died on October 28 at the Columbia Hospital after a long illness. He received the degree of Doctor of Medicine from the Milwaukee Medical College in 1908, and later studied at Harvard University and in Vienna, Austria. Doctor Paschen was chief medical examiner in Milwaukee for the Metropolitan Life Insurance Company, served on the staffs of the Children's Maternity Hospital and Mount Sinai Hospital, and was a member of the Medical Society of Milwaukee County, the State Medical Society of Wisconsin, and the American Medical Association.

Surviving are his widow, two children, a sister, and four brothers.

Dr. Hugo F. Mehl, Milwaukee, died November 1 at his home after an illness of about a year. He was born in 1876 and was graduated in 1902 from the University of Pennsylvania School of Medicine. He was for many years connected with the health department, several insurance companies, and the United States Pension Board. He also held a commission as major in the medical division of the United States reserve army. Surviving are his widow, a daughter, a son, and two brothers.

Dr. A. Schloemilch, of Portage, who had been in practice for over sixty years, died on November 15 after a short illness.

He was born in 1854 and was graduated from the Hahnemann Medical College and Hospital in 1875. Doctor Schloemilch was a member of the Portage County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

Dr. George S. Darby, Brodhead, was born in Otterbein, Indiana, on March 25, 1874, and died on November 14, following an illness of three years. He was graduated from Rush Medical College, Chicago, in 1902, and was a member of the Green County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association. He was also a major with the Thirty-seventh Hospital Unit in France during the World War.

Doctor Darby is survived by his widow and one son.

Dr. C. H. Golden, for many years a physician and surgeon in Wonewoc, died on November 3. Born in 1869, he was graduated in 1892 from the Rush Medical College of Chicago. Doctor Golden was a member of the Juneau County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

SOCIETY RECORDS

New Members

Vernard H. Benn, Rosholt.
Melvin F. Huth, Baraboo.
Isadore I. Cash, Tigerton.
M. V. Overman, Granton.
B. P. Ingersoll, Loyal.
I. J. Waldman, 208 E. Wis. Ave., Milwaukee.
L. M. Morse, Neillsville.
E. D. McConnell, Darlington.
C. P. Banfield, Gratiot.
W. F. Gager, Rhinelander.
N. M. Wiison, Manitowoc.
D. H. Eurit, Argyle.
E. W. Brott, South Wayne.
L. J. Unterholzner, Blanchardville.
X. Pearle Bent, Benton.
Leo A. Nash, River Falls.
W. A. Hilger, 3507 W. Lisbon Ave., Milwaukee.
S. J. Sweet, 4630 W. Burleigh St., Milwaukee.
R. D. Thompson, 3501 W. National Ave., Milwaukee.
N. W. McKittrick, 425 E. Wisconsin Ave., Milwaukee.
H. H. Prudowsky, 1509 W. Fond du Lac Ave., Milwaukee.
J. L. Brizard, 747 N. 27th Street, Milwaukee.
R. E. Olson, 828 N. Broadway, Milwaukee.

Changes in Address

J. H. Houghton, Wisconsin Dells, to 4045 Baltimore Ave., Philadelphia, Pa.

E. J. Ball, Manitowoc, to 810 So. Spring St., Los Angeles, Calif.

S. L. Casper, Berlin, to 5124 Hazel Ave., Philadelphia, Pa.

F. G. Zietlow, Genesee Depot, to Brillion.

John Hogan, Maiden Rock, to Kaukauna.

J. G. Paschen, Milwaukee, to 6527 Washington Circle, Wauwatosa.

R. F. Wagner, Sheboygan, to 416—16th Street, Oshkosh.

Proceedings; House of Delegates, State Medical Society of Wisconsin, 1936

FIRST SESSION

September 8, 1936

The first session of the House of Delegates of the State Medical Society of Wisconsin, Ninety-Fifth Anniversary Meeting, was called to order at 7:30 p.m. in the Hotel Loraine, Madison, Wisconsin, by the Speaker of the House of Delegates, Gunnar Gundersen, La Crosse.

Speaker Gundersen: The 1936 meeting of the House of Delegates of the State Medical Society of Wisconsin will please be in order. First of all, I wish to impress upon you the importance of the deliberations upon which we are entering. I would like to suggest that everyone, as much as possible, enter freely into the discussion. That applies to the alternates as well as to the delegates. I would suggest the alternate sit in the vicinity of the regular delegate, so in the event the regular delegate is not here, the alternate will be so advised and will be able to cast his vote accordingly.

In order to permit of the broadest possible discussion, it will be necessary to limit the time of the individual speakers to five minutes. By consent of the House, we will be able to extend that. The floor will be open to all members of the Society upon asking consent of the Speaker. I shall ask for the Secretary's announcements at this time.

Secretary Crownhart: Mr. Speaker, your Secretary is informed that Dr. J. C. Wright, for forty-nine years a delegate to this House of Delegates, because of illness, has been unable to attend this meeting, which would have been his fiftieth. If it meets with the approval of the House, an appropriate wire will be forwarded to Dr. Wright.

Dr. Butler (Menomonie): I move that such a message be sent to Dr. Wright.

. . . The motion was seconded by Dr. Dawson, of Rice Lake, and carried unanimously . . .

Speaker Gundersen: The next order of business is the appointment of Reference Committees of the House of Delegates as follows:

Credentials Committee:

L. W. Peterson, Sun Prairie, Chairman
J. P. Reinhardt, Fountain City
C. A. Armstrong, Prairie du Chien

Committee on Resolutions:

A. E. Rector, Appleton, Chairman
H. J. Gramling, Milwaukee
R. P. Sproule, Milwaukee
H. P. Bowen, Watertown
A. E. McMahon, Glenwood City

Reports of Officers and Standing Committees:

Lucius W. Hipke, Milwaukee, Chairman
H. B. Keland, Racine
A. J. Gates, Tigerton
H. H. Christofferson, Colby
D. J. Twohig, Fond du Lac
R. G. Arveson, Frederic

I shall now call for a report from the Chairman of the Credentials Committee, Dr. Peterson, of Sun Prairie.

Report of the Credentials Committee

Dr. Peterson: Mr. Speaker, your Committee on Credentials is pleased to report at this time the registration of fifty members of the House, including five Councilors. No questions have been raised regarding the seating of delegates or alternates. Slips for this purpose have been distributed and I move the attendance so recorded constitute the roll of this session.

. . . The motion was seconded by Dr. Schneiders, of Madison, and carried . . .

Speaker Gundersen: The Speaker will entertain a motion to approve the minutes of the 1935 meeting of this House of Delegates, as printed in the Journal of last December.

Dr. Peterson (Sun Prairie): I move that the minutes of the 1935 meeting be approved as printed.

. . . The motion was seconded by Dr. Powers, of Milwaukee, and carried . . .

Speaker Gundersen: The next order of business is the reports of officers and committees. These reports were published in the August issue of the Journal, but it is customary to afford an opportunity at this time for the officers and committee chairmen to make additions or to stress important points. I shall, therefore, call upon them now. The first report is that of the Chairman of the Council, Arthur W. Rogers, of Oconomowoc.

Dr. Rogers: Mr. Speaker, I have nothing to add to the printed report.

Speaker Gundersen: The President of our Society, Ralph M. Carter, of Green Bay.

Report of the President

President Carter: Last year, upon assuming the office of President of this Society, I stated that it was my intention to do all within my power to advance the interests of the medical profession of the State. This, I have consistently tried to do during the year which has just passed.

In rendering a brief account of my stewardship this evening, it is not my intention to review specifically accomplishments which have taken place during the year as a result of the combined efforts of the officers and members. Rather would I discuss briefly for you a few of the things which, in the light of my experience, appear to me to be significant, and of vital importance to the members of the medical profession.

As I grow older year by year, I become more and more convinced of the value of organization in medicine. Working alone, the individual practitioner can accomplish little outside of his own relatively small sphere of influence. Joined in strong county and state organizations, however, the power of these same individual practitioners becomes very great. At the present time, as you all know, the private practice of medicine, as we know it, is threatened by mass attack by members of interested groups, bent upon setting up their own systems, fired by fanatical zeal as reformers always are, and, finally, not without very clear ideas of their own self-interest. If we are to preserve our heritage, if we are to resist successfully these encroachments, if we are to continue to practice in the way which is best for the people and for ourselves, we are going to have to exert all the power which we possess, and this can be done only through organization.

I believe this is beginning to be realized. Your Secretary's report will show that this year our membership, in spite of the fact that there has been an increase in dues over the preceding few years, has reached a high point and is still going up. This is as it should be. Most of us, in addition to our county and state organizations, belong to other scientific bodies and pay dues to them. But how many of us ever stop to realize that out of all these scientific societies, our State Society is the only one which is actually looking out for our interests and actually doing something for us in a material way. When the returns upon our investment are considered, it is surprising that we are able to get so much for so little.

A moment ago, I referred indirectly to the drive for state or socialized medicine. Although, during the past few months, the agitation in this direction has apparently subsided somewhat, let us not be deceived thereby. Much of this agitation is governed by expediency and in my own mind I am convinced that, before many more months have elapsed, the drive will be resumed again with renewed vigor. If this drive does not immediately assume national proportions, it will be directed toward securing legislation in several of the states, of which Wisconsin will undoubtedly be one. As has been said, "Eternal vigilance is the price of safety," and this is nowhere more applicable than in the battle of the private practice of medicine against state medicine.

During the past year, your State Society, in cooperation with others, has furnished postgraduate courses in obstetrics and pediatrics. With the rapid advancements which are today being made in all fields of medicine, for the practitioner to keep up-to-date, postgraduate work is a necessity at least once a year. It is impossible for many men to find the time and money required to leave home for such courses; therefore, the courses must be brought to them. To my mind, this service is properly a function of the State Medical Society of today and should be continued and enlarged. If it is not possible for the Society to make arrangements to put on such postgraduate courses free of charge, at least the fee should be very small.

The members of the State Medical Society should have it impressed upon them that this is *their* Society. It is not an impersonal thing run for the benefit of a few. The function of the officers of the Society is to carry out the wishes of the majority of the members, as determined by the House of Delegates. The county societies, therefore, should see to it that their delegates know what the wishes are of their constituents. In short, let us "humanize" the Society, so to speak, as much as possible.

Another function of the State Medical Society is the collection and preservation of historical records. We now have a Medical History Committee which has done excellent work in the short period of its existence. I would recommend that this committee be continued and made a permanent committee of the organization.

Finally let me repeat once more what I have previously said in another place:

> "The county medical society is the point of contact between organized medicine and the public at large. It should be the adviser and coordinator of all medical and public health problems of the community in which it is situated. It should be the place to which the local public can turn, as to a friend, for help, guidance, and specialized knowledge.
>
> "To enable any county society to attain this position depends entirely upon the united efforts of the individual practitioners composing its membership. Petty differences and jealousies among the members must be forgotten for the common good; the officers and members of committees should be chosen with care and for their ability and fitness for their tasks; in short, the medical profession must sell itself to the American people."

In conclusion, let me say again that I have enjoyed my year as President of the State Medical Society of Wisconsin. I have done my best to devote to it all the time and effort required, and this has been considerable. On the other hand, there have been compensations of a spiritual and intangible nature which have fully repaid me. Once more, allow me to thank the officers and members for their loyal and hearty cooperation and to extend my best wishes to my successor and very good friend, Dr. Stephen E. Gavin. I know that under his capable leadership our organization will continue to go forward and prosper.

Speaker Gundersen: The next order of business is the report of the Secretary and Managing Editor, J. G. Crownhart.

Report of the Secretary

Secretary Crownhart: Mr. Speaker, the report of the Secretary and Managing Editor was outlined in some detail in the August Journal. However, I would like to add the following to it:

The membership on this day a year ago was 2,081. Today it is 2,195, or 114 more than a year ago at this time. The membership in 1935 as a whole was 2,236. We have nineteen known applicants, and it is entirely possible that the membership as of December 31 next will be the largest in the history of the Society.

One of the significant portions of the Secretary's report which, obviously, could not be made in great detail because the report went to press very early, was that which related to the work of the Governor's Citizens' Committee on Public Welfare. Your Secretary is very happy to report that following the session of this House tomorrow night you will have before you the Director of the Governor's Committee, and your Secretary, to present to you the concept of the committee as a whole and some of the work of the subcommittee on health and disability.

We were able, during the year, to publish a most complete report in the Journal on the subject of relief under the Federal Relief Administration.

In time of stress, existing institutions receive a most searching analysis. It is also a tactic of war that when the enemy is concerned with his left, he will meet attack on his right. So while medicine has been subject to such analysis that has required every effort of the Society, our opponents of various types have been attacking on our right, and I think we may anticipate fairly a legislative session that will present many bills old to you but new to many members of the legislature who will be there for the first time.

The chiropractors, of course, will seek to repeal the Basic Science Law, the first in this nation. They will seek the use of the title "Doctor"; will seek undoubtedly to be permitted to attend cases falling within the terms of the Workmen's Compensation Act, and I think we may anticipate there will be sought further legislation in the field of relief. Optometrists will undoubtedly again seek the use of the title "Doctor" and perhaps try to broaden their official scope in the field of school and industrial examinations. Some few physicians have turned to the frankly commercial, trying to justify their actions as an ethical response to public demand.

There has been something that indicates another group is flirting with the idea of prescribing drugs. Relief departments, deprived of federal funds, have sought to cheapen costs in some instances by returning to the old and antiquated system of what we knew in less modern times as the county physician.

I merely mention these things to say that the Society has had its battles in the past, but will undoubtedly have more in the next year and those immediately following. Your officers, as I know them, and your committees, as I have seen them, are striving by every known means at their command to secure and preserve that which must endure if medical service of high quality is to continue.

I want you to know that your Secretary appreciates, more deeply than he can express, the help of the individual members and the officers of your Society. That help has come from every part of the state without a single exception and from an office staff that does not watch the clock. Results are always difficult to demonstrate when one is trying to present them in terms of dollars. We have done so in the last few years and the dues of your Society have been returned to you many times over, and, in perpetuity, through your collective action.

I feel, Mr. Speaker, we may have continued success in the future, but it will be only by that closely

knit type of organization, that response at any time the call comes, and in legislative sessions aid, without waiting for the call.

Speaker Gundersen: The Chair will next call on Dr. Rock Sleyster, Treasurer, for his report.

Report of the Treasurer

Dr. Sleyster: You will recall that the complete annual report of the Treasurer is published with the proper consideration of the Council, in January, and that the report presented to the House of Delegates is only for the first eight months of the year, in other words, up to September 1.

TREASURER'S REPORT, STATE MEDICAL SOCIETY OF WISCONSIN

as of September 1, 1936

	General Fund	*Medical Defense Fund*
Balance January 1, 1936	$ 4.54	$ 968.46
Receipts:		
Membership dues	$32,732.50	$2,002.00
Interest on Investments	677.75	307.50
Exhibit space—annual meeting	1,110.00	
Bonds matured — American Tel. & Tel. Co.	3,998.60	
Bonds called—Wisconsin Gas & Elec.		1,049.65
Profit on bonds called	197.91	
	$38,716.76	$3,359.15
Total	38,721.30	4,327.61
Disbursements:		
Expenses Sundry	27,158.03	133.60
Fees, Ronold A. Drechsler, Attorney		348.99
Fees, Ralph M. Hoyt, Attorney		250.95
Bond purchased — Wisconsin Gas & Elec.		1,038.72
Total Disbursements	27,158.03	1,772.26
Cash on deposit as of September 1, 1936	11,563.27	2,555.35

Summary of Funds

General Fund:		
Bank Balance September 1, 1936	11,563.27	
Investment bonds	20,000.00	
Total	31,563.27	
Medical Defense Fund:		
Bank Balance September 1, 1936		2,555.35
Investment Bonds		11,000.00
Total		13,555.35

General Fund:

	Maturity	*Rate*	*Par Value**	*Quoted Value**
New York State Elec. & Gas Corp.	3– 1–80	4½%	$1,000.00	$1,030.00
Canadian National Railway Co.	10– 1–69	5 %	2,000.00	2,380.00
Milwaukee Gas Light Co.	3– 1–67	4½%	2,000.00	2,140.00
T. M. E. R. & L. Co.	6– 1–61	5 %	2,000.00	2,100.00
Northern States Power	4– 1–41	5 %	4,000.00	4,200.00
City of Milwaukee School Bonds	1– 1–37	4½%	1,000.00	1,007.50
Dominion of Canada	1–15–61/56	3¼%	2,000.00	2,067.50
Dominion of Canada	8–15–45	2½%	2,000.00	2,012.50
Wis. Public Service Corp.	6– 1–61	4 %	3,000.00	3,120.00
Wis. Power & Light Co.	6– 1–66	4 %	1,000.00	1,000.00
			$20,000.00	$21,057.50
Medical Defense Fund:				
Milwaukee County Sewer	3–18–44	4½%	$1,000.00	$1,137.50
Pacific Tel. & Tel. Co.	1– 2–37	5 %	1,000.00	1,010.00
Bell Telephone Co. of Canada	3– 1–55	5 %	2,000.00	2,300.00
Commonwealth Edison Co.	7– 1–57	4½%	2,000.00	2,240.00
U. S. Treas. Bonds 1944–46	4–15–46	3¼%	2,000.00	2,162.50
So. California Edison Co.	5– 1–60	3¾%	2,000.00	2,125.00
Wis. Gas & Elec. Co.	4– 1–66	3½%	1,000.00	1,035.00
			$11,000.00	$12,010.00
Total			$31,000.00	$33,067.50

* Quotations obtained on September 1 from the Securities Company of Milwaukee.

You will recall that the holdings are deposited with the First Wisconsin Trust Company, which clips the coupons. The par value of the bonds in the General Fund is $20,000. Last Saturday I had them appraised by the First Wisconsin Trust Company and the market value was $21,057.50. The par value of the Medical Defense Bonds is $11,000.00, with a market value last Saturday of $12,010.00. This makes a total of investment securities held by the Society of $31,000, with market values last Saturday of $33,067.50; in other words, our investments are worth $2,067.50 more than the par value. I might say that at no time during the depression has any security held by the Society defaulted either in payment of interest or in its value.

Speaker Gundersen: We will now have the report of the Committee on Necrology, which will be presented by our Secretary, Mr. Crownhart.

Report of the Committee on Necrology

Secretary Crownhart: Mr. Speaker, representing the Committee on Necrology, I call to the attention of the delegates that the deaths during the past year were printed in the August Journal. Since publication of the August Journal, it is necessary to report the following deaths:

John A. Gillen — Rice Lake
T. A. Lid — Marinette
J. T. Ozanne — Oshkosh
G. F. Werner — St. Cloud

Speaker Gundersen: This report is now ready for your approval and will be adopted by rising vote, in honor of our deceased members. The delegates will please remain standing until the gavel falls.

. . . The assemblage paid silent tribute to the deceased members . . .

Speaker Gundersen: The next is the report of the Committee on Public Policy, Stephen Gavin, of Fond du Lac, Chairman.

Dr. Gavin: The Committee has nothing further to report.

Speaker Gundersen: The Committee on Medical Economics, Dr. Rector, of Appleton, Chairman.

Dr. Rector: The Committee has nothing further to report.

Speaker Gundersen: The Committee on Medical History, Dr. F. Gregory Connell, of Oshkosh, Chairman. (Not present) The Committee on the Prevention of Goiter, Dr. Arnold Jackson, Chairman. (Not present) The Committee on Health and Public Instruction, Dr. Wenzel Wochos, of Kewaunee, Chairman. (Not present)

The Committee on Cancer, Dr. W. D. Stovall, of Madison.

Secretary Crownhart: Dr. Stovall wishes me to tell the House of Delegates that it is necessary for him to preside at the session of the Cancer Institute this evening and he could not be present; however, he has nothing further to add to the printed report.

Speaker Gundersen: The Committee on Coordination of Medical Services, Dr. Joseph F. Smith, of Wausau, Chairman.

Dr. Joseph F. Smith: Mr. Speaker, there is nothing of special importance, I believe, to report. The Committee has met twice during the year. Matters of mutual concern between the University and the medical profession have been discussed in rather a friendly and frank manner. Insofar as I know, nothing of any particular importance has occurred to report.

Speaker Gundersen: I believe the Editorial Board has nothing further to report.

In connection with the Committee on Scientific Work, of which I am Chairman, I do not believe there is anything further to report, except this year there has been a little departure in respect to the program, that of joining with the cancer conference of the University of Wisconsin. They were fortunate in obtaining a grant from the Wisconsin Alumni Research Foundation which was considerably in excess of what we were able to expend for program material. The cancer conference has been held two days previous to this meeting. The third day of the conference is being held jointly with our program, which is tomorrow.

Does the Committee on Medical Defense have a further report to make? Dr. A. J. Patek, of Milwaukee is chairman. (Not present)

The Committee on Institutional Care, Dr. A. W. Bryan, of Madison, Chairman.

Report of the Committee on Institutional Care

Dr. Bryan: Mr. Speaker and Members of the House of Delegates:

At the 1935 session of the State Medical Society of Wisconsin, the President, Dr. Ralph M. Carter, appointed a new committee entitled the Committee on Institutional Care, composed of myself as chairman, Drs. G. E. Seaman and J. M. Conley, both of Oshkosh. Because of urgent personal affairs, Dr. Seaman, who was particularly interested in the appointment of this committee, resigned and his place was given to Dr. John Garvey, of Milwaukee.

To me, it is a great privilege and a distinct honor to come before you with a report of the work of this committee thus far. It is also my hope that some of the matter contained herein will serve to give you some comprehension of the status of affairs in our State and County Institutions and to stimulate all of the members to use their influence as individuals and as representatives of a great Society to do all in their power to place our institutions on the highest possible level of service to the patient.

What is said is meant in no spirit of adverse criticism of the present administration, in which direction there has already been much wasted time and money, but is given purely from the standpoint of suggesting what we feel will give this type of patient the best that present-day medicine can provide for a group of physically helpless and economically restricted individuals.

What, in a general way, is the status of Wisconsin in relation to other states with regard to what is being done for patients in this class? To shed some light on this point, I have elsewhere prepared a chart. Figures, to be sure, may be construed very much according to the particular state of mind in which one reads them.

From the chart, it appears at once that our rate of hospitalized insane patients per hundred thousand of population is larger, with 381, than that of any state in these groups mentioned, except New York with 415, and this is approached elsewhere only by New Hampshire with 400, Vermont with 414, and Massachusetts with 425 (the maximum). All of these figures are notably large when compared with the minimum for the United States, which is found in Idaho with a rate of 125. Construed otherwise, one in 253 people in Wisconsin, 335 in Illinois, 362 in Minnesota, 422 in both Iowa and Michigan is confined within the walls of institutions for the treatment of the insane.

Is it possible that we are retaining within our hospitals patients who with more complete medical care and more adequate social follow-up might be paroled? The following figures seem to imply this.

For instance, our rate of first admissions per hundred thousand is less appalling compared to that of our neighbors, the figure being: Wisconsin 61; Minnesota, 51; Iowa, 57; Michigan, 68; Illinois, 145. However, our discharge rate compared to total inmates is the following, roughly: Wisconsin, 1 to 10.7; Minnesota, 1 to 9.06; Iowa, 1 to 5.3; Michigan, 1 to 6.1; Illinois, 1 to 3.4. In view of these facts and those that follow, I ask you to consider whether or not there is a distinct possibility that with more adequate staff and equipment, a larger number of our inmates might not be returned to society on some satisfactory basis and a great economy in bricks and mortar, food and clothing might be thereby effected.

Now, then, as to the specific needs of our two state hospitals, Mendota and Winnebago. These hospitals, as you know, were constructed primarily as receiving hospitals where adequate diagnosis and treatment could be carried on, the more chronic cases being passed on to one of the thirty-six county asylums which make up our rather unusual county system. Much of our trouble rests in overcrowding based upon what has been taken as economy in dollars and cents, and so we find that in each of these hospitals there is a bed capacity of about 750. Occasionally they are called upon to house some 900 patients and within a year to receive some 2,000.

In Mendota, there are four physicians in addition to the superintendent; at Winnebago, six, of whom two are of the status of second year interns, making an average for the year of 400 patients per regular staff physician. At Mendota, there is no receiving unit in the sense of a place equipped with ample staff, laboratory and x-ray equipment for the intensive study of new patients. The only x-ray equipment is that available after transportation to Soldiers' Memorial Hospital or Wisconsin General Hospital. No laboratory is maintained except for urine analysis as done by certain attendants and this usually without microscopic examination. Of course, adequate Wassermann and spinal fluid examinations are, no doubt, made through the usual arrangement with the Wisconsin Psychiatric Institute. One may question whether or not an overworked staff would not in all probability make many further valuable laboratory observations if there were a technician with equipment for blood count, blood chemistry, basal metabolism and bacteriological tests. There is need for more adequate hydrotherapy, physical therapy, and occupational therapy, additional isolation facilities, more specially trained registered nurses and more specialization among the staff members.

At Winnebago, most of the same restrictions are found. To be sure, there are two receiving units, one of which contains good x-ray equipment, but from the standpoint of the hospital as a whole it is not very accessible. It is also impossible at present to employ these units for the purpose for which they were intended. A very good laboratory with a well-trained technician exists, but there is notable deficiency in staff members, trained nurses, hydrotherapeutic equipment, porches, occupational therapy and social service workers.

Of the thirty-six county institutions of the State, the committee has visited some twenty-two. The total bed capacity of these institutions is 8,559 and the population is 8,673. The smallest of these is Vernon County with a capacity of 128, the largest is Milwaukee County Asylum for the Chronic Insane with 1,406 beds and a population of 1,530. In addition, there is the Milwaukee County Hospital for Mental Diseases, more especially acute conditions, with a rated capacity of 920 and housing 981 patients. These institutions, aside from the Milwaukee County Asylums which are well-staffed, are in charge of a superintendent and a matron. There is also a regularly attending physician who makes two regular visits per week and such extra calls as emergency may demand, this in many instances amounting to daily visits or even more. At his regular visit, he sees from three to ten patients and in the course of a month probably thirty to fifty different patients.

In most instances, there is no trained nurse to help him organize his work, although the matrons are commonly very efficient women. There is no room set aside for examinations or equipped for dressings or minor surgery; in most instances should he wish special laboratory tests, it is necessary for him to procure the specimen, transport it to his office and there examine it himself. Should a patient become disturbed, in no instance except Milwaukee County is hydrotherapy at his disposal, and he must rely upon sedatives and restraints.

As to records, the admission papers are on file in the superintendent's office with such data from the state hospitals as may have accompanied the patient. Of late, the accompanying histories from the state hospitals have been more valuable, but too often this information is rather sparse.

The calls of the visiting physician are usually recorded in a large register, giving the patient's name, number, complaint, and treatment provided, but to date there has been little attempt to make such information accumulate consecutively in the patient's folder. The doctor is usually a busy man with considerable practice other than at the county institution. He is sincerely interested in the welfare of these people and as a consequence he maintains his rôle year after year, though his personal expense in the performance of his duties is probably not in excess of his stipend in so doing. He makes frequent rounds through the wards to see that everything is in general good order, but, as a rule, makes no regular complete examination of the mass of patients at any particular interval, as he is not paid enough to give the time for this work.

Should acute surgical conditions arise, and most surgery authorized is urgent surgery, the patient is transferred either to the Wisconsin General Hospital or more often to the most available local hospital. In one instance, this is particularly embarrassing, as the most available hospital and the one most often used is within the confines of another State. For all of this, the average medical attendant is paid from $148 to $700 a year, more often about $450. In some counties, he may obtain additional county rates for such surgery as he performs but in many instances his stipend is considered sufficient to compensate for this service as well.

In all, according to law, the vestigial remains of an older order in the care of mental cases exists in that the institutions are known as "asylums."

If these numerous county institutions are to become more active units in one state system for the hospitalization of the nervous and mentally disturbed, a coordinating agency must be developed. In view of the success of the psychiatric field service

among state institutions, this committee feels that the most logical solution of this problem would be the formation of a psychiatric field service unit for county institutions functioning under the Board of Control. Such a unit, consisting, for instance, of a psychiatrist, an internist, a technician, and a case worker, spending from seven to ten days per institution per year might be expected to do as follows:

(a) Re-examine and re-evaluate the mental and physical status of all chronic insane; (b) determine numerous physical impairments and in consultation with the attending physician and other accepted consultants arrange for their proper treatment; (c) develop a uniform system of records; (d) determine, in consultation with the regular medical attendant and superintendent, the advisability and feasibility of parole; (e) maintain more intimate contact among the Board of Control, the state hospitals, the Wisconsin Psychiatric Institute, the local medical attendant, superintendent, county board, and local mental hygiene units.

The expense of such a unit, we presume, would be borne jointly by the State through the Board of Control and the counties. Its success would depend upon such modification of the minimum accepted requirements for mental hospitals as to suit them to our system of county institutions. The doctors and superintendents who favored this unit insisted that such a unit must be composed of mature and well-qualified men of such a type as to command respect in consultation.

The total cost of maintaining this population of 11,000 annually is approximately $856,040 for all of the following five state institutions: Mendota, Winnebago and Central State Hospitals and the Northern and Southern Colonies for the feeble-minded, $2,227,839 for the thirty-six county institutions, a total of $3,083,879; the property value represented by these institutions is about $9,120,000 for the State and Milwaukee County Hospitals and about $9,000,000 for other county institutions or a total of approximately $18,976,000.

Minimum Standards for Mental Hospitals as Adopted by the American Psychiatric Association in 1925

1. The chief executive officer must be a well-qualified physician and experienced psychiatrist whose appointment and removal shall not be controlled by partisan politics.

4. There must be an adequate medical staff of well-qualified physicians, the proportion to total patients to be not less than 1 to 150 in addition to the superintendent, and to the number of patients admitted annually not less than 1 to 40. There must be one or more full-time dentists.

5. There must be a staff of consulting specialists at least in internal medicine, general surgery, organic neurology, diseases of the eye, ear, nose, and throat and radiology employed under such terms as will insure adequate service. A record of their visits must be kept.

11. The classification must include a separate department or building for reception and intensive study and treatment; a special unit for acute physical illnesses and surgical conditions; and separate units for the tuberculous and the infirm and bedfast. Each of these units must be suitably organized and equipped for the requirements of the class of patients under treatment.

12. The hospital must be provided with a clinical and pathological laboratory, equipped and manned in accordance with the minimum standards recommended by the committee on pathological investigation.

13. The hospital must be provided with adequate x-ray equipment and employ a qualified radiologist.

15. The treatment facilities and equipment must include:

a. A fully equipped surgical operating room.

d. Adequately equipped examination rooms for the specialists in medicine and surgery required by the schedule.

e. Provision for occupational therapy and the development of specially trained instructors.

18. There must be an adequate nursing force, the proportion of nurses to total patients to be not less than 1 to 8, and the proportion of nurses to surgical patients, those under intensive treatment, and those acutely sick, to be not less than 1 to 4. Provisions must be made for adequate systematic instruction and training of members of the nursing force.

19. Mechanical restraint and seclusion, if used at all, must be under strict regulations and a system of control, and recorded by the physicians, and must be limited to the most urgent conditions.

Recommendations

In conclusion, I should like to repeat the recommendations of this Committee as published in the August issue of the State Journal, together with a further one, recommending observation rooms for the detention of disturbed patients in county hospitals. These recommendations are:

1. Immediate expansion of the staffs, bed capacities and treatment facilities of the two state hospitals, Mendota and Winnebago. This applies also to laboratory facilities and technical help. This is necessary in order to prevent the too early transfer of patients to county asylums and to give more adequate opportunity for the return of certain patients from the county to the state institutions for further treatment.

2. The county institutions should be made more and more hospitals in fact, which purpose may be furthered by such means as the following:

a. Encourage a greater degree of mutual understanding and a greater psychiatric interest on the part of the physicians in charge of the several county institutions. This might be furthered by sectional meetings among these institutions, by a round-table conference in connec-

tion with the annual meeting of the State Medical Society, by supplying the institutional library with current literature on psychiatry, neurology, and mental hygiene.

b. Build up such respect for the physician as to make him a positive force in the life of the institution rather than, as is too often the case, one to be called only in emergencies other than those relating to the nervous system, and on from whom little psychiatric knowledge is demanded or expected.

c. Coordinate the work of the institutions further by establishment of a psychiatric field service in this section of the State which has the care of nearly two thirds of the State's mentally disturbed patients.

d. Designate the institutions as "hospitals" or "hospital homes" rather than as "asylums."

e. Pay the doctors a salary adequate to promote their interest in giving the institutions the time which their capacity and population demand.

f. Keep adequate individual case records so that the course of a given patient may be more readily followed from the standpoint of his own health, comfort, and efficiency on parole; of indications for further treatment and social follow-up of ability of responsible relatives to give care to milder cases.

g. Furnish at each institution an adequate examining or small operating room with sufficient adjacent laboratory facilities so as to make the work of the attending physician and that of the field service possible.

h. Supply a properly trained registered nurse to each institution and so order her duties in contra-distinction to those of the matron and superintendent that there shall be no just cause for friction among them.

i. Arrange for two or more rooms in each county institution equipped for the temporary examination of acutely disturbed patients, thereby preventing the too early and often hazardous transportation of these individuals to state hospitals or other special institutions.

3. Develop a complete State system of mental hygiene activity.

Speaker Gundersen: I am sure I express the sentiment of this House when I express to Dr. Bryan our very keen appreciation of his excellent report.

We will next have the report of the delegates to the American Medical Association. Dr. J. Gurney Taylor of Milwaukee will present the report.

Report of Delegate to the Annual Meeting of the American Medical Association

Dr. Taylor: Mr. Speaker and Members of the House of Delegates:

The Speaker of the House of Delegates of the American Medical Association outlined concisely the duties and obligations of the delegates participating in the proceedings. It applies equally to our state organization as well as the national. I feel that it bears repetition at this time.

"You have been selected by our state societies to carry to this body the opinions of your constituents, the opinions of your county medical societies, the opinion of your individual members * * * You are the policy-makers of this democratic organization and not only does the country look to you for constructive action which will reflect the progressive sentiment of American medicine but your constituents, in turn, look to you for an interpretation of the quality of that sentiment."

This obligation has devolved upon me to report for your delegates. The spirit of cooperation, coordination, and detailed study of all resolutions presented was shown by the unflagging interest, careful consideration, and detailed discussions that occurred in the reference committees previous to their presentation for adoption. It was not uncommon to find a reference committee room filled to capacity with delegates and others who desired to discuss the resolutions referred thereto.

You have had the report of our Secretary, Mr. Crownhart, relative to the important actions instituted in the House of Delegates of the American Medical Association, printed in the June issue of the Wisconsin Medical Journal, as well as an adjunct report given by me in the August number. For complete information relative to the many subjects that were given consideration, I would urge those interested to secure the publication from the American Medical Association entitled Proceedings of the Kansas City Session.

Resolutions were adopted requesting the delegates to present certain outstanding actions to their State Society. Therefore, I wish to emphasize the report of the Judicial Council.

(Page 661, Wisconsin M. J.): "The Report of the Judicial Council carries recommendations that portions of said report should be brought to the notice of component societies, the re-emphasizing of the importance of following established procedures in trials.

"Repeatedly the Judicial Council has called attention to the necessity of closely following proper procedure in the conduct of trials based on charges against members of component and constituent organizations and of the necessity of coordinating the governing by-laws of the state association and its component societies. Apparently the many warnings have not reached the ears of the officers and controlling boards of many state and county societies responsible for action.

"An example of this disregard for legal principles and constitutional procedure involved a case of such prominence that the decision of the Judicial Council was published in full in a recent issue of the J. A. M. A. It must be remembered that the Judicial Council is in no position to judge of the facts

involved in any local trial; that it has no knowledge of the facts developed at the trial except a written transcript of the trial, which almost invariably is so incomplete and confused as to inspire serious question as to its value, and that it has no opportunity to review the results of cross-examination and, therefore, it is very properly barred by the constitution from consideration of the facts and testimony as to facts except as related to law and procedure under which a given trial is conducted. It must also be remembered that orderly procedure and common legal principles are the right of and a protection to innocent and guilty alike. The Judicial Council refrains from taking advantage of technicalities either for or against accused but seeks to judge fairly on the principles underlying them. The Judicial Council recommends that the delegates from state associations bring this portion of its report to the serious attention of the responsible administering officers and boards of the societies they represent."

Page 661, Wisconsin M. J.): "Membership Jurisdiction. "That the jurisdiction of component societies and constituent associations with respect to membership should be clearly defined and definitely maintained." Dr. West advised that state associations enter into reciprocal relations whereby no dual membership should exist. This suggestion was adopted and recommended for earnest consideration of the component state societies.

(Page 661, Wisconsin M. J.): Hospital from Accredited List. Resolution requesting that state association be notified when hospital is threatened with removal from accredited list adopted. "Resolved by the House of Delegates of the American Medical Association that the Council on Medical Education and Hospitals, in all actions concerning the rating of hospitals having to do with the appointment of interns and residents shall, when a hospital is threatened with removal from the accredited list, permit such hospital to seek the advice and assistance of the authorities of the State Medical Society."

The report of the Reference Committee on Legislation and Public Relations is of intense interest and clarifies the position of the Association on the subject of furnishing medical care by group contract. It was adopted unanimously and recommended to the state societies for their consideration.

(Page 1919, J.A.M.A.) "Sickness insurance has been thoroughly discussed. Plans for the distribution of medical care to low income groups are being tried by various county societies. Large industrial interests have approached physicians and county medical societies with plans for the medical care of their employees.

"Your Committee on Legislative Activities calls to the attention of the delegates and through them to the attention of all constituent associations and component societies, the fact that the attitude and decision of the profession on this question are of utmost importance. It may readily be seen that the profession will lose its continuity of thought and action if its members vary from the principles which have been laid down to guide those active in bringing about contractual relations with any group.

"Your Reference Committee points to the fact that in contracts between physicians of organized medical groups and employers or groups of employees the qualifications of those eligible for medical service under the contract is based on the source of their employment rather than the amount of their income. In this respect, such contracts must not be confused with the various experimental plans for the relief of low-income groups which have been defined and within certain limits approved for the purpose of study. Financial concession to members of certain groups, solely because they are employed by the same employer, regardless of whether the service is to be paid for by the employer or the employee, establishes a pattern for which there is not the same justification as that in which eligibility rests on an income basis. The consideration of such contracts is not an emergency matter.

"Prudence suggests the avoidance of possible bad effects rather than dependence on judicial appeal after unwise action has been taken.

"Your Reference Committee therefore recommends that before any such contracts are entered into they should be submitted to the state medical association having jurisdiction for approval or disapproval. The reasons on which are based the request for approval in establishing such a contract should be stated. Evidence should also be presented that the provisions of the contract would not operate in violation of restrictions on such practice as has been defined by the Judicial Council and action of the House of Delegates.

"Information concerning the acts and policies of local units of organized medicine travels rapidly and the enthusiasm of the moment frequently encourages similar action in other units before sufficient time for dependable trial has elapsed. Mutual interests and objectives which underlie the relations existing between the constituent associations should impose the obligation that before approval is given to a program which must obviously reflect on the interests of other states the state considering such approval should transmit the information on which it is basing its judgment to the other constituent state associations and to the American Medical Association."

The following refers to the administration of the Social Security Act in the respective states: "If the medical society of the state shows no interest or is unable to secure satisfactory state organization for the administration of the act, the Bureau representatives in Washington are unable to particularize sufficiently to solve medical problems which obviously must be handled locally. These questions deserve our most careful consideration. We must cooperate to develop plans which will preserve all the rights of the private practice of medicine.

"Your Reference Committee wishes to emphasize the importance of this matter and to point out that

the component county medical societies must be equally informed and active, as is the organization of the constituent state associations, for it is the members of the county society who will be concerned at the ultimate point of contact between the administration of the Social Security Act and the public and it is here that the weaknesses and abuses will be first evident.

"Delegates and secretaries of state societies should take the message from this meeting to their component societies. Something might also be gained by discussion of the operation under the various types of administration of this act before the Conference of state secretaries in Chicago."

Important actions will be found in the Wisconsin Medical Journal, page 467.

Speaker Gundersen: The next report is that of the Advisory Committee on Crippled Children, Dr. J. W. Powers, of Milwaukee, Chairman.

Secretary Crownhart: I think the committee has no further report to make in addition to that published.

Minnesota Officers

Speaker Gundersen: These reports are now referred to the Reference Committee of the House of Delegates on Reports of Officers and Standing and Special Committees with the exception of the report of the Committee on Necrology, which has been adopted.

We are particularly pleased tonight to have with us two principal officers of a sister State Society. I present to this House and ask that he stand, that we may all know him, the Secretary of the Minnesota State Medical Association, Dr. E. A. Meyerding, of St. Paul. A year ago, it was our great pleasure to be addressed briefly by the President of the Minnesota State Medical Association, who was then Dr. Coventry, of Duluth. Tonight we are honored by the presence of the President-Elect of the Minnesota State Medical Association. I take pleasure in presenting to you our neighbor, a master surgeon, and a man whom I am very proud to call my friend, Dr. A. W. Adson, of Rochester, Minnesota.

Dr. Adson: Mr. Speaker and Delegates of the State Medical Society of Wisconsin: I did not come to address you but to listen and learn. I am only the President-Elect and my official duties do not begin until the first of the year. But because your Society has accomplished so many things in progress and in the control of medical problems, we have come to learn, with the hope we may embody some of your policies in our own organization. We have mutual problems not only in the organization of our state societies but also in the care of the indigent and legal problems that involve the practice of medicine. I can assure you that we esteem it a privilege to be allowed to attend your executive session and hope we may return the compliment at the next meeting which takes place in St. Paul in May.

Speaker Gundersen: The next order of business is the matter of amendments to the Constitution and By-Laws. There are on the table of this House several proposed amendments to the Constitution and By-Laws. The proposed amendments therein contained, if adopted, would affect the future actions of the House this evening. Therefore we will consider these proposals at this time. I shall call on the Secretary to read the amendments.

Proposed Amendments to the Constitution and By-Laws

Secretary Crownhart: Mr. Speaker, I am assuming we will take these amendments up one by one.

At the 1935 session of the House of Delegates, your then Committee on Resolutions presented an amendment to the Constitution which has laid on the table a year in accordance with the constitution and has been three times published in the Journal. It is an amendment to Article IX of the Constitution relating to Officers.

"Article IX. Officers. Section 1. The officers of this Society shall be a President, a President-Elect, a Secretary, a Treasurer, *Councilors from thirteen districts,* and a Speaker and Vice-Speaker of the House of Delegates.

"Sec. 2. The officers, except the Councilors, shall be elected annually. The terms of Councilors shall be for three years. *There shall be elected one Councilor for each of the thirteen districts except that in any Councilor District embracing a membership of 250 or more there shall be elected one additional Councilor for each additional 250 members or major fraction thereof.*"

The remainder of the section remains as it now is. Mr. Speaker, this amendment is properly before the House at this time.

Dr. Gramling (Milwaukee): I move the adoption of the amendment as read.

. . . The motion was seconded by Dr. Ryan, of Milwaukee . . .

Speaker Gundersen: The motion to adopt this amendment has been properly seconded. Is there any discussion? All in favor of the adoption of the amendment will signify by saying "Aye"; opposed "No." I shall ask for a division of the House. All in favor of the adoption of this amendment will please rise. Those opposed will please rise. The result of the vote is 29 voting in favor of the amendment; 21 opposed. A two-thirds vote of this House is necessary for the adoption of a change in the Constitution or By-Laws and the motion is lost.

Secretary Crownhart: The next amendment was introduced by Dr. Bowen, delegate from Jefferson County. It is as follows:

Amend Section 2 of Article IX of the Constitution by repealing all of said Section 2 and re-creating Section 2 to read as follows:

"Sec. 2. The President, President-Elect, Speaker and Vice-Speaker shall be elected by the House of Delegates. The Secretary and Treasurer shall be elected by the Council. *Councilors shall be elected*

at a meeting of their respective district societies. Notice of election shall be incorporated in a mailed notice to the members at least seven days before such meetings.

"Election, where more than one nomination is received, shall be by ballot and a majority of votes cast shall be necessary to elect. Each candidate for councilor must be a resident of the district which it is proposed to represent and no person known to have solicited votes for or sought the office of Councilor shall be eligible for the current election. Other procedure essential to the election shall be governed by Robert's Rules of Order.

"The officers, except the councilors, shall be elected annually. The terms of councilors shall be for three years and all officers shall serve until their successors are elected and installed. Terms of councilors shall expire in the following order:

"Third, fourth, fifth and sixth districts in 1937, seventh, eighth, ninth, tenth and thirteenth districts in 1938, first, second, eleventh and twelfth districts in 1939, and hereafter shall be elected in order.

"This amendment offered in 1935 is to be acted upon in 1936 and shall, upon adoption, be effective on January 1, 1937."

Secretary Crownhart: Mr. Speaker, this amendment is properly before the House, having laid on the table for one year and having been published three times in the Journal.

Dr. Powers (Milwaukee): I move the adoption of the amendment as read.

. . . The motion was seconded by Dr. Bowen of Watertown . . .

Speaker Gundersen: Motion has been made and seconded to adopt this amendment. Is there any discussion?

Dr. Bowen: As father of the amendment, I think it only proper that I say something in regard to it and the reason why I feel this amendment should be adopted as part of the Constitution. I was particularly impressed by a remark made by Dr. Taylor when he referred to this organization and to the American Medical Association as a democratic organization. Personally, I do not feel, if you have read and understand the amendment as presented, there should be any question as to the amendment being adopted. This amendment asks only that those who know the proposed candidate for councilor best elect him back in the home district. As I have said to this House of Delegates before, when you propose a man from Superior as a councilor, I sit here and vote. I do not know him. I think that is your business back in your district, to bring into this body a man qualified, a man whom you want to represent you. I will trust to the judgment of the men from Superior, the judgment of those along the lake shore, and I will trust to the judgment of those along the Illinois line or around Prairie du Chien.

But to sit here and vote upon some one whom I do not know, just to be a figurehead and say "Aye," when he is nominated over in this corner or that corner without any premeditation looks to me very undemocratic. I happen to belong to that group of individuals who always wants to be democratic, not in name only, but in actual practice. For that reason, I cannot see how anybody can have any motive for voting down this amendment. Back in our Councilor District, Dodge, Jefferson and Waukesha Counties, we have voted to adopt this amendment one hundred per cent. It has been turned down once by this House. I said we voted to adopt it 100 per cent and I am not saying 99. I believe that if you will give it the clear-minded consideration that we back in our district have given it, there will be no negative votes. The amendment will be carried and put into effect January 1. To reiterate, I look forward and expect, with the character of this very, very democratic amendment, in this very, very democratic era, that it will be passed.

Dr. E. E. Kidder (Stevens Point): The matter contained in this amendment was brought up a couple of years ago. It was then brought out that many districts do not hold regular meetings. I believe that is still true. In our district, we hold meetings every three months but I believe many districts do not hold meetings even once a year. Because of that fact, I do not see how they could elect a councilor in this way.

Dr. Bowen: What seems to be the trouble that they are not holding meetings annually? I believe it has been the intent of this Society, and I know it has always been carried out in our district, that we do hold annual meetings. I am asking why meetings are not held in this era when you have facilities for driving many miles in an hour? Is there anything wrong with the district?

Dr. Peterson (Sun Prairie): As far as I can see now, I think the system of electing councilors is as democratic as it could be because the delegates control the election of the councilor. I cannot see why it is not as democratic a way as the proposed method.

Dr. McMahon (Glenwood City): Speaking for the Tenth District, this amendment was discussed at a meeting about two weeks ago. In contrast to the meeting which Dr. Bowen speaks of, the sentiment was 100 per cent against the adoption of this amendment. They felt the method of election now in force was just as democratic, if not more so, as the proposed method of election of councilors.

Dr. Rock Sleyster: Mr. Speaker, I do not wish to rise to argue on either side, but I think the House should remember that this is in line with the policy of medical organizations throughout the country. The Council is not a legislative body. The Council is a Board of Directors. It is an Executive Committee which functions in the place of the House of Delegates, in the interim between sessions. So one must bear in mind in deciding the question the nature of the Council. It is in no way a legislative body.

. . . The question was called for . . .

Speaker Gundersen: The question has been called for. You are voting on the adoption of this amendment. All in favor of the motion to adopt the amendment signify by saying "Aye"; opposed "No." The motion is very clearly lost.

Secretary Crownhart: Mr. Speaker, the following amendment to the Constitution was announced by the Secretary at the last meeting of the House and has been published three times in the Journal. It is, therefore, properly before this House. Its purpose is correctional only. To make certain the actual intent of the Constitution is carried out in fact. It amends Section 2 of Article IX of the Constitution by adding the following sentence:

"The President-Elect shall automatically succeed to the office of President at the conclusion of his one-year term of President-Elect."

There is no question in the mind of any delegate, I am sure, but what that is the actual interpretation of the Constitution but it so happens the wording does not seem to be sufficiently plain in case some dispute at some future date arose. For that reason, this correctional amendment has been offered and is properly before you for adoption.

Speaker Gundersen: Do I hear a motion for the adoption of this amendment?

Dr. Rector (Appleton): I move the adoption of this proposed amendment.

. . . The motion was seconded by Dr. Anderson, of La Crosse, and carried unanimously . . .

Dr. R. G. Arveson (Frederic): Mr Speaker, I rise to ask whether it is possible to bring up for reconsideration the question of the first amendment. I notice there were many delegates here who did not vote either way upon that question. It seems to me there should be some explanation regardless of the fact it was published three times in the Journal. The members around me, at least, say they do not know the purpose of the amendment.

Secretary Crownhart: Mr. Speaker, a motion that has been defeated may be reconsidered upon a motion by one of those who voted for its defeat.

Dr. Peters (Oconomowoc): If the doctor is desirous of having further information on this question, I move it be reconsidered.

. . . The motion was seconded by Dr. Hildebrand, of Sheboygan . . .

Speaker Gundersen: All who are in favor of voting for the reconsideration of the first amendment read, signify by saying "Aye"; opposed "No." The Chair is uncertain. We will ask for a rising vote.

Secretary Crownhart: A majority vote is always required to reconsider; a two-thirds vote should be required for adoption.

Speaker Gundersen: Those who are in favor will please stand. We have fifty-nine delegates present. Twenty-seven have voted to reconsider. Those who are opposed will please rise. Twenty-five are opposed. The motion is carried, the vote being twenty-seven to twenty-five.

Secretary Crownhart: Mr. Speaker, now that you have voted to reconsider the first amendment, it is again before you for action. So that it may be perfectly clear, the amendment to Section 2, Article IX, provides one change. "There shall be elected one Councilor for each of the thirteen districts except that in any Councilor District embracing a membership of 250 or more there shall be elected one additional Councilor for each additional 250 members or major fraction thereof."

Dr. Sisk (Madison): A point of information, Mr. Speaker, how many districts will that affect?

Speaker Gundersen: I shall ask the Secretary to answer that question.

Secretary Crownhart: One district, Dr. Sisk. It affects the Twelfth District embracing Milwaukee County, which has a large membership.

Dr. Arveson: I would like to hear from the delegates from Milwaukee, and would like to hear how the Councilors feel about this.

Speaker Gundersen: A motion for the adoption of the amendment is in order.

Dr. Ryan (Milwaukee): I move the adoption of this amendment.

. . . The motion was seconded by Dr. Lettenberger, of Milwaukee . . .

Dr. Arveson: I would now like to hear from the delegates from Milwaukee and the number by which the Councilors would be increased.

Secretary Crownhart: It would increase the number of Councilors by two.

Dr. Lettenberger: Will the Secretary please state how many members of Milwaukee County belong to the State Society, practically one third?

Secretary Crownhart: Last year your membership was somewhere between 650 and 700, that is members of the State Medical Society of Wisconsin within the twelfth district. There were 2,236 members for the State as a whole. That would be something around thirty per cent.

Dr. Lettenberger: Is Madison affected by this change?

Secretary Crownhart: It is not affected. It has approximately 250 members, as I recall, and you would have to have a major fraction of the next 250 in order to have an additional Councilor.

Dr. J. C. Sargent (Milwaukee): Mr. Speaker and Members of the House of Delegates: In view of the last motion, I rise to discuss this subject. Having been chairman of the Committee on Resolutions last year which introduced this resolution on its own behalf, and since the House of Delegates is going to consider it again, it seems it ought to have some explanation in connection with its background. I rise only to bring that before you. I want the House of Delegates to know that the delegates representing Milwaukee County last year or this year have not discussed in any manner any sort of constitutional change to increase their representation. Insofar as I know, there has been no discussion in the

five years in which I have been in contact with the county organization, no official discussion on the part of any of the bodies except some two or three years ago at one of the meetings of the Board of Directors the matter was informally discussed.

I say that because I think the members of the House of Delegates ought to know and understand this resolution did not emanate from the delegates of Milwaukee County as such. It emanated from the Committee on Resolutions last year after consideration of the matter for some time. That consideration was given for the simple fact that there were in Milwaukee County about a third of the membership of the State Society.

I hope any of the committee members here will correct me if I give a wrong impression of that meeting. I do not believe there was in the mind of any of the members of that committee the idea that Milwaukee should have two more men on the Council just because of its own size, because it was entitled to a certain percentage of control of the Council, if you please. I think the resolution emanated from a realization of the fact that the membership in Milwaukee County was extremely large, nearly eight hundred members. Being that large there are a wide variety of feelings and opinions, a constant conflict of emotions and concern, and I think the committee, last year, in introducing this resolution, felt it might be a wise thing for the organization of the State as a whole if these conflicting emotions in Milwaukee County had an opportunity to express themselves in the Council.

I realize the statement made by Dr. Rock Sleyster a moment ago; the fact, however, remains that as the years go by and the organization and its interests become increasingly complex, more and more of the management of affairs and the setting of policies of the profession of the State of Wisconsin will fall into the hands of the Council. I simply rise to give you this information as the background of this resolution. I thank you.

Dr. Gramling (Milwaukee): I just want to corroborate what Dr. Sargent has said. I wish the delegates to understand that Milwaukee does not ask more representation because it wants control of the Council. Milwaukee wants more representation so that it can be familiar with the sentiment that is out in the State. You can see that in a district the size of Milwaukee County there are conflicting groups in the medical organization and when there is only one councilor as in the past he represents his views. If there were more councilors, it would be of great benefit to have them bring back from the meetings the views of the Council, and thus the views of the State might be disseminated. Milwaukee has only the interests of the profession of the State at heart. It does not in any way attempt or want to influence or dominate the Council. That is farthest from the thoughts of the Milwaukee practitioners. I am sure the Milwaukee delegates here will correct me if the statements I make are not correct.

One word more about the organization of the Milwaukee District. You have in Milwaukee the delegates and the Board of Directors, with the exception of Dr. Sargent, which is an entirely different set of men, and then there are the different committees. There is no collusion in any way except for the interests of organized medicine in the State.

If you give us three councilors, Milwaukee will be more familiar with what is going on in the State because of the two extra men who will attend the different meetings of the organization. They will disseminate and explain the knowledge that they receive at the Council meetings. That is the reason Milwaukee would like to have two more councilors.

Dr. Rector (Appleton): Would the district be divided and would there be three councilor districts, or would there be three councilors elected for the same term of three years?

Secretary Crownhart: The constitutional amendment before us would not divide it. There would be three councilors from Milwaukee, each serving for a term of three years, but the terms would not all expire at the same time. There would be one elected each year.

Dr. Ryan (Milwaukee): In view of the fact that the amendment was voted down previously, I wonder if there would not be a way to poll the House of Delegates to determine who is eligible and who is not eligible to vote for the amendment.

Secretary Crownhart: Yes, that will be attended to.

Dr. R. P. Sproule (Milwaukee): I would like to hear from the other side as to the objections; it seems to me a fair proposition, but I would like to hear from some of the men on the other side.

Dr. D. J. Twohig (Fond du Lac): Mr. Speaker, I have no objection to Milwaukee having as many Councilors as they wish, but I cannot see any sense in making the change. Milwaukee is represented in the House of Delegates according to their prorating. They have a perfect right to vote on matters that come up in the House of Delegates. As I understand, the constitution of this State, when it was organized, was framed so as to block just such a thing as is going on now. We have had that thing tried out in other places of business and it always worked to the detriment of the institutions that brought it out. If they have one Councilor and that Councilor is not able to bring back what he should, they had better ask him to resign and get another Councilor from Milwaukee who is able to do so. It is only making the thing more complicated, and because there is greater population there it is no reason, in my judgment, why they should have one or two additional men on the Council.

Dr. Sisk (Madison): Mr. Speaker and gentlemen of the House of Delegates: I have no objection to Milwaukee County having all the representation on the Council they desire. The Council now has thirteen voting members and after this session will have fourteen. The work of the Council now, because of its size, is somewhat cumbersome. If you take a matter before that Council they will tell you to let

them refer it to a smaller committee because this organization is now too large to give the time for the discussion of certain subjects.

The idea of a Councilor for each Councilor District is entirely tenable as compared to representation in all large organizations. You have heard tonight that the Council is not a legislative body. Insofar as I know, there has never been any legislation promulgated in the Council; and insofar as we in Dane County are concerned, if you are going to base it on a matter of population, Dane County, and the district of which we are members, are going to consider that since we are as large as we are perhaps we also would like to have an additional Councilor.

. . . The question was called for . . .

Speaker Gundersen: The question has been called for. I shall ask the Secretary to call the roll.

Secretary Crownhart: In effect this amendment asks for two additional councilors, increasing the Council to fifteen.

. . . The Secretary called the roll . . .

Ashland–Bayfield–Iron	No
Barron–Washburn–Sawyer–Burnett	No
Brown–Kewaunee–Door	No
Calumet (delegate and alternate not present)	
Chippewa	No
Clark	No
Columbia	No
Crawford	Yes
Dane (all delegates)	No
Dodge (not present at roll call)	
Douglas	No
Eau Claire–Dunn–Pepin	No
Fond du Lac	No
Forest	No
Grant	No
Green	No
Green Lake–Waushara–Adams	No
Iowa	Yes
Jefferson	No
Juneau	No
Kenosha	No
La Crosse	No
Lafayette (Delegate and alternate not present)	
Langlade (Delegate and alternate not present)	
Lincoln	No
Manitowoc (Delegate and alternate not present)	
Marathon	No
Marinette–Florence (Delegate and alternate not present)	
Milwaukee (all delegates)	Yes
Monroe	No
Oconto (Delegate and alternate not present)	
Oneida–Vilas	No
Outagamie	No
Pierce–St. Croix	No
Polk	Yes
Portage	No
Price–Taylor	No
Racine	No
Richland	Yes
Rock	No
Rusk (Delegate and alternate not present)	
Sauk	No
Shawano	Yes
Sheboygan	No
Trempealeau–Jackson–Buffalo	No
Vernon	No
Walworth	No
Washington–Ozaukee	No
Waukesha	No
Waupaca	Yes
Winnebago	No
Wood	Yes

Speaker Gundersen: The vote on the roll call is as follows: 38 opposed; 21 in favor. The motion is lost.

Secretary Crownhart: Returning to our order of business, the Council presents to this House of Delegates an amendment to the By-Laws. This amendment, after it is read, lies on the table one day and will be voted upon tomorrow evening. The amendment is to change the section which now creates a Committee on Scientific Work composed of three men, one appointed by each incoming president, that man to serve as chairman of the program committee and to serve with the chairman of the last two meetings. The Council recommends that Section 2, Chapter VII of the By-Laws be re-created to read:

"The Council on Scientific Work shall be appointed by the Council of the Society in a manner and for terms to be designated by the Council. The Council on Scientific Work shall study the character and scope of the scientific proceedings of the Society and shall prepare the scientific program for the annual meeting. It shall likewise study the field of postgraduate education, making available so far as lies within its power program material for such postgraduate education both through programs of component societies and in such other ways as it may find feasible."

The purpose of the amendment is to provide a committee more comprehensive in membership than the present one, that will work through longer continuity of membership, and whose efforts will be broader in scope than just the formulation of the annual meeting program. This amendment is laid on the table.

A final amendment to the Constitution was presented at the 1935 House of Delegates. It amends Article VI of the Constitution referring to the Council. It adds the immediate Past-President as a member of the Council and then provides that the voting membership of the Council shall be the thirteen councilors and the immediate Past-President. The non-voting members of the Council will remain as at present, the President, President-Elect, Secretary, Treasurer and Speaker of the House. The effect of this amendment is to add the immediate Past-President to the Council and provide him with a vote.

It is properly before the House, Mr. Speaker.

Speaker Gundersen: The Chair will entertain a motion for the adoption of this amendment to the Constitution.

Dr. F. D. Murphy (Milwaukee): I move the adoption of this amendment.

. . . The motion was seconded by Dr. Mauermann, of Monroe . . .

Dr. McMahon (Glenwood City): As a matter of information, how long is the Past-President to remain a member of the Council? That was not stated.

Secretary Crownhart: One year. It says the "immediate Past-President." As soon as there is a a new one, the one who has served steps out.

. . . The question was called for . . .

Speaker Gundersen: All who are in favor of this motion will vote "Aye"; opposed "No." The motion is carried.

Committee on Nominations

The House will now proceed to the election of the Committee on Nominations. In accordance with precedent, I shall ask the Secretary to read the names of the counties in each Councilor District. The delegates from the district concerned will rise at the conclusion of the reading of the counties comprising the district and nominate a man from among themselves to represent their district on this committee. At the conclusion of all nominations, the Speaker will entertain a motion to declare the thirteen nominations to be the vote of the House.

. . . The Secretary read the names of the counties comprising the first district . . .

Dr. Bowen: I nominate Dr. Peters of Oconomowoc.

. . . The Secretary read the counties of the second district . . .

Dr. Ruffolo (Kenosha): I nominate Dr. Keland of Racine.

. . . The Secretary read the counties of the third district . . .

Dr. Mauermann (Monroe): I nominate Dr. Sisk of Madison.

. . . The Secretary read the counties of the fourth district . . .

Dr. Howell (Fennimore): I nominate Dr. Armstrong of Prairie du Chien.

. . . The Secretary read the counties of the fifth district . . .

Dr. Lynch (West Bend): I nominate Dr. Hildebrand of Sheboygan.

. . . The Secretary read the counties of the sixth district . . .

Dr. Twohig (Fond du Lac): I nominate Dr. Minahan of Green Bay.

. . . The Secretary read the counties of the seventh district . . .

Dr. Devine (Ontario): I nominate Dr. Ferguson of Elroy.

. . . The Secretary read the counties of the eighth district . . .

Dr. Duer (Marinette): I nominate Dr. Gates of Tigerton.

. . . The Secretary read the counties of the ninth district . . .

Dr. Kidder (Stevens Point): I nominate Dr. Pomainville of Wisconsin Rapids.

. . . The Secretary read the counties of the tenth district . . .

Dr. McMahon (Glenwood City): I nominate Dr. White of Rice Lake.

. . . The Secretary read the counties of the eleventh district . . .

. . . Dr. H. J. Orchard of Superior was nominated by Dr. Lockhart . . .

. . . The Secretary read the counties of the twelfth district (Milwaukee County) . . .

Dr. Sproule (Milwaukee): I nominate Dr. L. W. Hipke.

. . . The Secretary read the counties of the thirteenth district . . .

Dr. Bump (Rhinelander): I nominate Dr. Ison of Crandon.

Speaker Gundersen: The Speaker will now entertain a motion to declare the thirteen nominations to be the choice of the House.

Dr. Christofferson (Waupaca): I so move.

. . . The motion was seconded and carried unanimously . . .

Election of Councilors

Speaker Gundersen: We come to the question of election of Councilors; in accordance with the Constitution, Councilors are elected by the House as a whole, but, following precedent, the nominations are made by the districts affected. In the first district including the counties of Dodge, Jefferson and Waukesha, it is necessary to elect a Councilor to succeed Dr. A. W. Rogers. In the second district, consisting of the counties of Kenosha, Racine and Walworth, it is necessary to elect a Councilor to succeed Dr. Frank W. Pope. In the fifth district, composed of the counties of Calumet, Manitowoc, Sheboygan, and Washington–Ozaukee, it is necessary to elect a Councilor to succeed Dr. A. H. Heidner of West Bend, appointed by the Council to fill the vacancy occasioned by the death of Dr. C. M. Gleason. In the eleventh district consisting of the counties of Ashland–Bayfield–Iron and Douglas, the term of office of Dr. F. G. Johnson of Iron River expires. In the Twelfth District consisting of Milwaukee County the term of office of Dr. R. W. Blumenthal expires.

. . . The districts electing Councilors were assigned places of meeting for caucus and a five minute recess was declared . . .

Speaker Gundersen: The first order is the election of a Councilor from the First District to succeed Dr. A. W. Rogers, of Oconomowoc.

Dr. Peters: The delegates from the First District unanimously nominate Dr. Arthur W. Rogers to succeed himself.

Speaker Gundersen: Are there further nominations? This does not preclude nominations from the floor. If there are no further nominations, the Chair will entertain a motion for the election of Dr. Rogers to succeed himself as Councilor from the First District.

Dr. Bowen (Watertown): I move, Mr. Speaker, that the nominations be closed and that the Secretary cast one ballot for the House of Delegates for Dr. A. W. Rogers, of Oconomowoc, to succeed himself as Councilor of the First District.

. . . The motion was seconded and carried unanimously . . .

Secretary Crownhart: The Secretary casts the ballot of this House for Dr. A. W. Rogers of Oconomowoc of the First District to succeed himself as Councilor.

Speaker Gundersen: The election of a Councilor from the Second District.

Dr. Keland: The delegates of the Second District nominate Dr. Frank Pope to succeed himself as Councilor.

Speaker Gundersen: Are there further nominations?

Dr. Ruffolo: I move, Mr. Speaker, that the nominations be closed and the Secretary cast the vote of this House of Delegates for Dr. Frank W. Pope to succeed himself as Councilor of the Second District.

. . . The motion was seconded by Dr. Rector, of Appleton, and carried unanimously . . .

Secretary Crownhart: Mr. Speaker, the Secretary casts the ballot of this House for Dr. Pope to succeed himself as Councilor of the Second District.

Speaker Gundersen: The election of a Councilor from the Fifth District.

Dr. Hildebrand: The delegates of the Fifth District nominate Dr. A. H. Heidner, of West Bend.

Speaker Gundersen: Are there further nominations?

Dr. Webb (Milwaukee): I move, Mr. Speaker, that the nomination be closed and that the Secretary cast the ballot of this House of Delegates for Dr. Heidner as Councilor of the Fifth District.

. . . The motion was seconded by Dr. Sisk and carried unanimously . . .

Secretary Crownhart: Mr. Speaker, the Secretary casts the ballot of this House for Dr. Heidner as Councilor of the Fifth District to fill the vacancy caused by the death of Dr. C. M. Gleason.

Speaker Gundersen: The election of a Councilor of the Eleventh District.

Dr. Orchard: Mr. Speaker, the delegates of the Eleventh District nominate Dr. F. G. Johnson, of Iron River, to succeed himself.

Speaker Gundersen: Are there further nominations?

Dr. Orchard: I move the nominations be closed and the Secretary cast the ballot of this House for Dr. F. G. Johnson, of Iron River, to succeed himself as Councilor.

. . . The motion was seconded by Dr. Lockhart and carried . . .

Secretary Crownhart: Mr. Speaker, the Secretary casts the ballot of this House of Delegates for Dr. Johnson to succeed himself as Councilor of the Eleventh District.

Speaker Gundersen: The election of a Councilor from the Twelfth District.

Dr. Sproule: The Twelfth District nominates Dr. Joseph Lettenberger, of Milwaukee.

Speaker Gundersen: Are there further nominations?

Dr. Hipke: I move the nominations be closed and the Secretary cast the ballot of this House for Dr. Joseph Lettenberger as Councilor of the Twelfth District.

. . . The motion was seconded by Dr. Gramling and carried . . .

Secretary Crownhart: The Secretary casts the vote of this House of Delegates for Dr. Joseph Lettenberger, of Milwaukee, as Councilor of the Twelfth District.

Appointments of President-Elect

Speaker Gundersen: The committee appointments of the President-Elect must be confirmed by this House, according to our Constitution. Your Speaker has great pleasure in presenting to you at this time the President-Elect. We shall be happy indeed to hear from him both as to the committee appointments and as to suggestions and recommendations for the conduct of our Society. Our President-Elect, Stephen E. Gavin, of Fond du Lac. (Applause)

President-Elect (Stephen E. Gavin): Mr. Speaker and Members of the House of Delegates: The object of this appearance is primarily to make committee appointments. Sometimes in the past it has been suggested that the President-Elect make other recommendations and this has been done. I took the opportunity of looking over the files of the Wisconsin Medical Journal, the proceedings of the House of Delegates, to find a precedent for not going into any recommendations at this time outside of the appointment of the committees. I was able to find such precedent on several occasions, so I feel quite at ease. I also found some instances in which recommendations were made, very splendid and excellent recommendations. Some of them were followed out; others are still being held in abeyance.

Realizing the tremendous amount of work before the House this session, and realizing that further recommendations upon which there may not be time to act would perhaps be superfluous, I do not believe I shall proceed with any. One thing I would like to recommend to the delegates, however, is that on their return home they take some pains to inform the membership at large of the work of the Society, something of the activities of this House, and something of the proceedings. There is a tremendous

lack of information and a tremendous amount of misinformation prevailing among the members throughout the State.

I do not know of any body or any group of men, a small group comparatively, which has such intimate information of the workings of the State organization as has the House of Delegates. It seems to me instead of simply going back to one of the early meetings in the fall and giving a perfunctory report or reading the report that is sent to you by the Secretary, a brief report of the high lights of the meeting, perhaps you should take pains to get a copy of the proceedings and enlighten the members who sent you here as to the reasons for many of the acts performed by this body.

One of the recommendations which has been made by several of the past-presidents has been to correlate and spread such information throughout the State, both to members and the laity. Those recommendations have been acted upon to some extent. Some parts of them are still in abeyance, but we have this machinery already set up so far as the delegates are concerned. I really believe that if each delegate in this House tonight goes back with a firm idea of giving all he can to the membership, continuing the interest of the individual member in this organization during the year, we will ultimately be able to get some part of the gospel to the membership at large.

Many of the men in this House have been here for many years, others are new. It is surprising how little many of the members outside get from these men who know all about it. The turnover in this House is interesting to me; I took occasion to look it over the past two years. I find in this House tonight, out of a total delegation of about 125, there were eighty-five members in the House last year at Milwaukee. At Milwaukee last year there were eighty-three members in the House who were in the House at Green Bay the year before. There are sixty-five members in this House who were not in the House at Green Bay two years ago. Hence there is continuity in this body, a way of following the activities of the Society year after year.

You cannot depend upon your Presidents. They are elected for one year and are out of office the next year. But the continuity in turnover of the delegates develops a great amount of information in the workings and problems that beset this organization.

Making the committee appointments is quite a task. It is especially difficult to decide on any one individual to fill a position when one has so many splendid, capable, competent men from whom to select. In spite of what I say about the membership-at-large, and I wonder sometimes where the dividing line comes between the membership at large and that which is not at large, it is surprising how this membership at large is waiting for just this information. When you take this membership, even the ones at large, it seems to represent a tremendous amount of intelligence, competence, and capability, so it is really a problem to sift through 2,300 men to select men for these committees. I have sometimes thought I would toss them all in a hat and choose them from here and there; however, that is not the way these men were appointed. They were appointed after a very careful process of elimination. I have eliminated, at least, for the time being, designedly so, some of the special committees appointed year after year, for the reason that many times committees appointed at this time, during the annual meeting, have no call to function during the year. I do not know of any better way to take the enthusiasm out of an individual than to appoint him to a high-sounding committee, have him all enthused over the committee appointment, and then have him sit down for the whole year, two years or three years without a thing to do. So, as I say, I have purposely eliminated some of the special committees for the time being. I realize that problems may come up in the future, over night perhaps, that require more thorough investigation and perhaps some committee action, but there will be machinery to appoint a committee to take care of the condition which needs to be cared for at the time.

I wish to announce appointments to the following committees:

Committee on Public Policy:
Carl W. Eberbach, Milwaukee

The Editorial Board:
George H. Ewell, Madison

Committee on Medical Defense:
A. J. Patek, Milwaukee

Committee on Medical Education and Hospitals:
Francis D. Murphy, Milwaukee

Committee on Medical Economics:
A. E. McMahon, Glenwood City

Committee on Health and Public Instruction:
E. E. Kidder, Stevens Point

Cancer Committee:
H. T. Barnes, Delafield, 1st district
D. J. Twohig, Fond du Lac, 6th district
G. W. Krahn, Oconto Falls, 8th district
C. W. Giesen, Superior, 11th district

Committee on Medical Care For Veterans:
Otho A. Fiedler, Sheboygan
R. B. Rogers, Neenah
H. A. Keenan, Stoughton

Committee on Medical History:
F. Gregory Connell, Oshkosh
(power to appoint associates)

Committee on Mental Hygiene:
A. W. Bryan, Madison
J. M. Conley, Oshkosh
J. L. Garvey, Milwaukee

Speaker Gundersen: You have heard the committee appointments of the President-Elect. The Chair will entertain a motion for the confirmation of these appointments.

Dr. Sisk (Madison): I move that the committee appointments as made by the President-Elect be confirmed.

. . . The motion was seconded by Dr. Mauermann, of Monroe, and carried . . .

Resolutions

Speaker Gundersen: The Chair is now ready to receive any proposed amendments to the Constitution and By-Laws and any resolutions.

Dr. R. J. Henderson (Tomahawk): I should like to re-introduce for the consideration of the delegates at the next session of this House of Delegates the constitutional amendment regarding the election of Councilors as proposed by Dr. Bowen.

Secretary Crownhart: The amendment is as follows: "Amend Section 2 of Article IX of the Constitution by repealing all of said Section 2 and recreating Section 2 to read as follows:

"Sec. 2. The President, President-Elect, Speaker and Vice-Speaker shall be elected by the House of Delegates. The Secretary and Treasurer shall be elected by the Council. Councilors shall be elected at a meeting of their respective district societies. Notices of election shall be incorporated in a mailed notice to the members at least seven days before such meetings.

"Election, where more than one nomination is received, shall be by ballot and a majority of votes cast shall be necessary to elect. Each candidate for councilor must be a resident of the district which it is proposed to represent and no person known to have solicited votes for or sought the office of councilor shall be elegible for the current election. Other procedure essential to the election shall be governed by Robert's Rules of Order.

"The officers, except the councilors, shall be elected annually. The terms of councilors shall be for three years, and all officers shall serve until their successors are elected and installed. Terms of councilors shall expire in the following order:

"Third, fourth, fifth and sixth districts in 1937, seventh, eighth, ninth, tenth and thirteenth districts in 1938, first, second, eleventh and twelfth districts in 1939, and thereafter shall be elected in order."

This amendment offered in 1936 is to be acted upon in 1937 and shall, upon adoption, be effective on January 1, 1938.

Dr. Rector: On behalf of the Outagamie County Medical Society, I wish to present a group of resolutions pertaining to membership in the county society. It is a matter of amendment to the Constitution:

"WHEREAS, Each county society is the judge over its own membership; and

"WHEREAS, Temporary residence may be used to gain membership in such society; and

"WHEREAS, Judgment of worth and ethical integrity cannot be appraised on short acquaintance; therefore be it

"*Resolved*, That the County Society be empowered to require one year of residence in the county as a prerequisite for membership in the County Society."

Secretary Crownhart: A proper amendment to the Constitution to carry out the purposes of this resolution will be prepared by the Secretary, lay on the table for one year, and be voted upon at the next session.

Dr. Rector:

"*Be It Resolved*, That the County Society may provide for associate memberships with or without fee as they may deem advisable."

The idea is that during a man's residency of one year he may attend the meetings of the Society and be an associate member so that the members may become better acquainted with him and he may become acquainted with the Society.

Secretary Crownhart: That will also be incorporated in the preceding amendment to the By-Laws or Constitution, as may be necessary, and will be voted upon by this House at its session in 1937.

Dr. Rector: "WHEREAS, Many foreign graduates of medicine enter the state annually for the purpose of practicing their art; and

"WHEREAS, This brings into the state unfair and unethical competition;

"WHEREAS, Instruction in many foreign medical schools is inferior to the American school; therefore be it

"*Resolved*, That no physician not a citizen of the state and of the United States shall be eligible for membership in the State Medical Society of Wisconsin or its component societies."

Secretary Crownhart: I take it this also requires a constitutional amendment and the Secretary will prepare such an amendment to be voted upon at the 1937 meeting.

Dr. Rector:

"WHEREAS, County societies degenerate and fail to function because of lack of interest and attendance; and

"WHEREAS, The vital welfare of the medical profession is dependent on the interest of its members; and

"WHEREAS, Interest in organized medicine cannot be maintained without participation in its activities; therefore be it

"*Resolved*, That attendance at the county society meetings be mandatory and, further, that county societies may provide penalties for non-attendance."

Secretary Crownhart: That is already provided for in the Constitution and the resolution, as such, will be referred to the Committee on Resolutions as a matter of general interest.

Dr. Sisk (Madison): This resolution is introduced at the request of the trustees of the Dane

County Medical Society. It is a resolution concerning participation by physicians in schemes for collective bargaining. I am reading the resolution by title, requesting that it be referred to the Resolutions Committee, that opportunity be given for a hearing before this Committee, and that it be reported out for further discussion.

Secretary Crownhart: It will be referred by title to the Committee on Resolutions.

Dr. Sproule (Milwaukee): I desire to present the following resolution.

"WHEREAS, The present methods of licensing osteopaths are misleading; and

"WHEREAS, The public is given the impression that the osteopath is licensed to practice medicine; and

"WHEREAS, This has resulted in misleading impressions and unnecessary complications; be it

"*Resolved*, That this House of Delegates instruct the Committee on Public Policy of the State Medical Society to introduce such legislation as will require the Board of Medical Examiners to issue distinctive certificates of license which will clearly indicate that the osteopath is licensed to practice osteopathy or osteopathy and surgery only."

Speaker Gundersen: This resolution will be referred to the Committee on Resolutions.

The Speaker understands that the Secretary has several items of new business that will properly come before the House at this time.

Executive Session

Secretary Crownhart: Mr. Speaker, before I proceed with the first order under this heading, will the House consider the suggestion of the Secretary that we go into executive session, which will not exclude any member of the Society.

Dr. Rector: I move that the House go into executive session.

. . . The motion was seconded by Dr. Marsh, of Madison, and carried . . .

Secretary Crownhart: May we have a committee to poll the House just briefly for a moment. The staff will act as sergeants at arms. This does not exclude any member of the Society. It excludes all others.

Mr. Speaker, under the Constitution, the framers of the Constitution very wisely provided that all the powers of the House of Delegates, with the exception of issuing memorials, should be vested in the Council in the interim between the sessions of the House. The purpose of this was to permit of action in emergency. The Council, however, feels it will best discharge its function when it acts as an Executive Board to discharge the policies that you frame.

From time to time during the past three or four years, emergencies have arisen that all appreciate and the Council has discharged this function in the hope it would meet with the pleasure of this House. Tonight the Council has asked me to bring to you specifically a resolution which it adopted in an emergency. It re-presents the resolution to you at this time for either your approval as a continued policy of the Society or its repeal. To give you the same background the Council had at the time it adopted the resolution, I would like to make this statement:

For as many years as your Secretary has been with the Society, we have analyzed almost from day to day, and certainly from week to week, new collection agency contracts. This analysis has been made as a service to the members. We have one of the largest files in our office devoted to such reports because we have found, in our experience with collection agencies, (I am speaking now only for members of the Society) that many of them are full of trick clauses, and it is at least the exceptional one that does not require a Philadelphia lawyer to tell what the fine print means.

I need not tell members of this Society or this House that physicians have lost thousands of dollars because some collection agencies that took their accounts were excellent collectors for the agencies but poor for the physician. This whole subject has been of particular interest during the depression years because the agencies were not slow to realize that physicians in large numbers had larger amounts on their books than ever before. Representing large numbers of companies, they descended upon Wisconsin, Minnesota, and other states soliciting the membership in every corner.

We have offered repeatedly through bulletins, the Journal, and other means to analyze any contract sent to us and report the results by wire if required, within twenty-four hours of the time received. Large numbers of men are constantly availing themselves of that service. At this particular time, during the depression years, a peculiar high-pressure salesmanship has been evidenced by some companies. The physician, under great financial pressure, is peculiarly ready for relief.

There came to the attention of your Secretary some time ago a contract from this source, presented from the Marathon Finance Company of Wausau. Upon invitation, Mr. Paul Tobey, of Wausau, the manager of the company, with a Mr. Skinner and Mr. Sprague, visited your Secretary. These latter two gentlemen were formerly employees of the Hacking Company of the Twin Cities in Minnesota, a pyramided concern that owned banks, finance companies, adjustment service bureaus, and other types of financial institutions, and that had operated from time to time under various companies in Wisconsin. Mr. Tobey, by the way, happens to have been a classmate of mine at the University of Wisconsin.

The two former employees of the Hacking Company presented the plan proposed by Mr. Tobey and the Marathon Finance Company. Our analysis disclosed, among other things, this one point and I shall only name this one. When one got into the details of the rather lengthy contract one found that while the company proposed to loan the patient a

sum of money by any plan in which he might pay the doctor, actually this was a bookkeeping loan. The company paid no money to the doctor to discharge this debt when the patient signed his note. As a result, the doctor was paid by the company as the patient paid the company from month to month, the company retaining their collection fee. The company, however, added, which is their right, a ten per cent finance charge in advance, which meant that if a loan had been made the interest rate would have been twenty per cent. No loan having been made, the interest rate was infinite.

In order to follow through on this situation and discover under what part of the law it was authorized, because that entered into our analysis, your Secretary and legal counsel had a conference with Senator Ingram, legal counsel for the Consumers' Division of the State Banking Commission. One conference was held, and subsequently a second one, at which Mr. Tobey and Mr. Skinner were present, as well as representatives of various small loan companies not involved in this situation but which were involved under the resolution as the Council originally adopted it. The Banking Commission made six definite and clear recommendations.

In the first place there were to be no bookkeeping loans with interest rate as infinite; in the second place, no method of operation which (I quote now the Banking Commissioner) "Uses the relationship of debtor-credit and finance company for the purpose of subterfuge to induce loans which would not ordinarily be made."

In other words, a combination of collection company and finance company was not to operate so that the collection agent going to the patient would say, "Why do you not borrow from us to pay the doctor?" If the patients wanted to borrow, that was his business, but that relationship was not to be used to induce loans. In other words, notes were to be made directly to the creditor, (in this case the physician) and not the finance company if it were a pure collection method.

Fourth, interest on accounts due was not to be added by the company and retained by them, but if the doctor felt he should have interest on the account past due he himself must add it and he would receive it unless he wished to assign it to someone else.

Fifth, if a loan were made to the patient, the full proceeds of the money due the physician must be paid him at once and the doctor could not be paid off month by month and have again a bookkeeping loan.

Sixth, the Consumers' Division advised by bulletin all companies licensed in Wisconsin as discount companies (in contradistinction to small loan companies not involved) that it would be better, in their judgment, for loan and collection agencies to operate separately and distinctly, one from the other.

Following the conference and following the preceding resolution adopted by the Council, a new plan was devised by the Marathon Finance Company. Very promptly copies began to trickle into the office with requests from the membership for information as to their liability under the contract; secondly, did it violate the Council resolution.

The new Marathon Finance Plan, as submitted in mimeographed form from the various parts of the State, in our judgment, violated several of the basic principles laid down by the Consumers' Division. I want to analyze it briefly for you so that you will have an understanding of what underlies the Council resolution, that you may determine whether you wish to keep it or repeal it. From the viewpoint of the doctor alone, if by contract between him and a company or any two individuals there is collusion to evade the law, whatever that may be, then all the people entering into contract become liable. It appeared to legal counsel in the very first instance that in the legal phraseology of the contract such collusion was involved.

In the second place, one part of the contract provided for setting up a credit bureau to distribute credit information. This is not new but something that the Society has investigated many times; a plan that is operating in some parts of the state under plans approved by the respective County Society. That provision in the contract stated the physicians would render to this bureau "cooperative assistance in making it impossible for persons who are able to pay but who will not to obtain medical services." We are dealing here, as the courts have said on various occasions, with a service that is not optional with the purchaser. In emergencies, it becomes necessary to preserve life. Medicine, never to the knowledge of the Council, has refused emergency care to anyone. From our legislative experience, I would like to say it is a dangerous principle upon which to operate. There was one member of the legislature who consistently voted against everything we had to propose and voted for everything we opposed. Here was a situation that must have something underlying it. Your Secretary one day asked him to put the cards on the table and tell what it was all about. It seems his next door neighbor had not paid his physician's bill and services had been refused. The mother was in labor and he himself had to secure a physician from many miles away. As a result of this one exception to professional obligations, he did not think much of the profession of medicine.

Secondly, how does this affect the physician from the standpoint of legal liability? You may have a credit bureau and may list accounts there very properly, providing first there is no error. If you make an unintentional error, that does not relieve you from liability if that patient suffers. Also, the account must actually be past due. Third, it must not be a contested account. You may think the man owes you the money but so long as he contests the amount of the service you may not list it with a credit bureau with legal safety to yourself. Fourth, it must not be disclosed to anyone other than members. Fifth, and most important, there must be no agreement between physicians as to what they will

do when a man is listed through that bureau service. The reason for that is as determined by a Supreme Court in another case. When you do that, the doctor then sets himself up as the judge and jury and upon a single doctor's report this individual may be deprived of medical service over a wide area, perhaps unjustly, and does not know why he is deprived.

In the viewpoint of the Council, let us look at this as a proposal, if you please, during a period of economic readjustment. In this period of readjustment we often hear it said, not only in the field of medicine, "We must lower costs for the low-income groups. We must raise their incomes." Some go so far as to say there must be a redistribution of wealth.

Let us examine the plan and see what it does to low-income groups. Does it maintain the same costs as other collection plans? Does it lower the cost which would be involved or does it actually increase it?

There are three services under this plan. The first is an "advance service." I come to the doctor and want a certain service. We will say it is an operation, but that it does not have to be done tonight. The doctor says this is going to cost one hundred dollars; I say I do not see how I am going to be able to finance it. He says they have an arrangement with the finance company and will call them in. On a $100 account, 20 per cent is charged the physician for handling the account. So in actuality the doctor is willing to accept $80 in cash and to cut the fee schedule by 20 per cent. The patient pays through the loan company, $10, because they get the interest in advance and presumably will let you pay $10 a month for a total of $100. If $80 is the debt and that is what the doctor is accepting from the finance company, the patient has borrowed money for which he actually pays 37 to 50 per cent interest for he has paid $110 to discharge the debt which would have cost him $80 in cash. If the doctor were willing to cut the cost to the finance company, why not to a deserving patient?

If the patient went to the nearest loan office and borrowed $80 at 10 per cent, he would have to pay $88 instead of $110, a difference of $22 or 25 per cent of the amount due. By routing the patient through the given company it increased the cost to the patient over open market borrowing by 25 per cent.

The second type of account is the so-called "current account," not over two years old, and a charge or credit has been made within that time on the account. Let us take the patient who owes the doctor $100; it is eighteen months past due. The doctor will receive $80 from the finance company. There is a 20 per cent collection fee; presumably if the patient had the cash he might settle with the doctor for $80. If it is done through a collection service only, what happens to the patient? Interest from due date is added by the finance company, not the doctor, at 6 per cent but not to exceed 10 per cent, or in this instance $9. That is retained when collected by the finance company as part of the charge under this contract. The patient pays $110 or 36 per cent more than for which he could effect a cash settlement. The patient pays $9 more than he would if the physician had used any other known collection system operating in this State.

If a loan is made to this patient whose account is current (eighteen months), the patient owing $100, the patient has this interest added ($9) making a total of $109.00. He pays 10 per cent interest in advance, making a grand total of $119.90, or 50 per cent more than a cash settlement, if he could have settled for the amount the doctor was going to receive from the finance company.

If a patient had owed a doctor $100 for two years and one day, the doctor would receive from this particular company 50 per cent of the first $20; 66⅔ per cent of the last $80 or a total of $63; presumably the doctor would settle with the patient for $63 dollars if he could obtain that much cash. If there is no loan, and collection service only is involved in handling the account through this particular company, interest from due date is added not to exceed 10 per cent, which in this case adds $10 to the bill, which is retained by the finance company. The patient pays $110, $47 more than by cash settlement or a difference of 75 per cent. The patient pays 10 per cent more to handle the account than he would to any other collection system in the State known to us.

I know it is said to us from time to time that so many of these patients are dead beats and deserve no consideration. You know it and I know it, yet an analysis by various agencies of physicians' accounts places the dead beat, in other words the man who could pay but does not, at somewhere between 3 to 10 per cent. Ninety per cent of your patients having some difficulty in paying are not deliberately trying to "beat you out" of the amount due. These patients unquestionably fall into the so-called low-income or marginal financial groups. There can be no question but what the procedure I have described to you tonight increases for them the cost of medical care from a minimum of 10 per cent to a certainty of 25 per cent in some instances and undoubtedly more than that in other instances.

I want to say in all frankness it is a system that undoubtedly brings the doctor more money. The collection agency serves as a finance company and says to the patient, "You want to pay the doctor. It is an honest debt." He admits it and they say, "Here is the way out. We will loan the money." In any statement I make tonight I do not intend to make any attack on anybody and particularly the directorate of the company, who are influential businessmen. I am but trying to analyze a contract which this company is proffering not only to members but to whole county societies. If we assume the basis as described, the plan costs the patient a minimum of twice as much to finance medical service as to finance a car, a luxury.

On this basis, the Council determined that if this type of contract were entered into by any considerable number of our men in the State (and we had

ample evidence it was being presented throughout the State) or through substantial portions of the State, it was going to be one that would not remain unknown to the public. It would be easy to say the patient does not appreciate what he is paying and that would probably be true. In the long run, with the searching analysis of the whole subject of delivery of medical care, the Council assumed this plan would not be unknown in its details and implications over any considerable period of time.

In the second place, the Council felt the plan had definite legal liability. The physician may go along in practice for twenty years with those liabilities not developing, but perhaps tomorrow he may face a suit. The Council felt it materially raised the cost of medical care for the low-income group and the percentage of this increase would not long remain a secret to the public. An analysis such as this is difficult to make and takes time. This particular analysis has been submitted to several and approved by them as accurate. The tendency in using such plan would be to have these agencies secure income for themselves at the expense of the low income group, which in my own judgment would be the best argument for a system of socialized salaried medical men that has yet come to my attention, particularly so at a time when the nation as a whole is engrossed with the problem of the low-income group.

The Council acted in the interim between sessions of the House. It had evidence this plan was being spread widely. Many physicians were enthusiastic about the results received, and the Council felt the plan would operate in the long run to the decided detriment of medicine in Wisconsin; that it would jeopardize its future. The Council may have been wrong or may have been right, but it acted, and proceeded in some detail, through resolution, copies of which are ready for distribution. The use of this plan, in its judgment was not compatible with membership in this Society.

The Council now, at the first opportunity, refers this resolution to the House. It says, having the best interest of medicine and its future at heart, it relies upon your judgment. The question now is whether you wish to have this resolution endorsed or repealed. That is the matter which the Council places before you.

Revised Resolution Adopted by Council on June 27, 1936 Re-Direct Loan and Discount Companies

"WHEREAS, *The Council of the State Medical Society of Wisconsin is cognizant of the fact that, in recent months, certain direct loan and discount companies (as distinguished from licensed small loan companies) have expanded their activities into the collection agency field, that by combining these two fields of business within the one organization the collection business becomes a 'feeder' to the loan business in that thus are secured the names of those who are financially distressed and to whom a loan may appear to be an advantageous and expedient method of alleviating the pressure of indebtedness; and*

"WHEREAS, *The Banking Commission of the State of Wisconsin, Division of Consumer Credit, by John F. Doyle, Supervisor thereof and Honorable G. Erle Ingram, special counsel therefor, under date of February 19, 1936, addressed a communication to such direct loan and discount companies (as distinguished from licensed small loan companies) in which it was stated among other things that it had come to the attention of the Banking Commission that certain loan companies had combined the business of 'adjusting accounts, making loans and discounting paper with that of collection' that it further appearing that in some instances the following had been the practice:*

a. "'The obligation so signed includes additional amounts for interest or finance charges.'

b. "In some cases 'cash is not advanced to the creditor to extinguish the debt for which the new obligation is given.'

c. "That 'inasmuch as loans are presumed to be predicated upon actual cash outlays, this procedure makes the addition of interest or finance costs questionable in its relation to the rate set forth in Wisconsin regulatory acts.'

"WHEREAS, *The Banking Commission, in such letter, further stated that such direct loan and discount companies, having anything to do with collections, should maintain a clear-cut distinction between loans and collections and 'no method of operation should be adopted which uses the relationship between debtor, creditor and loan company for the purpose of subterfuge to include loans to be made which would not be made in the ordinary course of the loan business.' That if 'the loan is merely predicated upon a plan whereby the creditor is the dominating figure in making a loan which would not have otherwise been granted to the debtor himself, then this is not a proper loan transaction and should be handled as an ordinary collection. If notes are to be taken, or new evidences of indebtedness entered into, they should be made directly to the creditor who may, if he desires, assign them for collection but in no instance should such note or evidence of indebtedness be made directly to a finance company, thus incurring additional interest and finance costs when they are not as a matter of fact loans'; and*

"WHEREAS, *The Commission further stated 'that it is better for finance and loan companies to refrain from combining in the same office collection business with the loan business. If it is desired to operate both lines of business, there should be a segregation of each with separate and distinct office, which said offices should be operated under different names and as separate entities. It is hoped that any companies now combining both functions in the same office will gradually segregate each line and establish separate offices as we consider this to be better business practice.'*

"WHEREAS, *Certain such loan and discount companies (as distinguished from licensed small loan*

companies) are continuing to solicit the physicians of this State for their collection business, and it having become increasingly apparent to the Council that physicians are not aware of the grave professional problems involved by their participation in any such collection and financing scheme, or the true costs to the patient thereof; and

"WHEREAS, *The Council believes that if physicians generally, or any of them, participate in such schemes there will inevitably result therefrom:*

"*1. A loss of public respect of the medical profession in its devotion, not only to the public health, but to the broad field of public welfare;*

"*2. The loss of the physician-patient mutual friendship and confidence which now exists so strongly as to be, individually, a bond of affection and regard;*

"*3. A commercializing of the profession of medicine in that the physician becomes a party to a contract in which his patients are induced to use high interest rate procedures to finance costs of medical care. Such procedure does not reflect the true position of the medical profession of this State.*

"*4. An increase in cost to the patient in obtaining and to a lesser degree, to the physician in supplying needed medical care; now therefore be it*

"*Resolved, By the Council of the State Medical Society of Wisconsin, acting under the powers granted to it by the Constitution and By-Laws of this Society, that the participation in any such collection scheme by any physician a member of any county society and by reason thereof, a member of this Society and of the American Medical Association shall be and is hereby declared to be an act of unprofessional and unethical conduct and, therefore, shall be and is hereby declared to be good and sufficient cause for the revocation of such membership in such society; be it further*

"*Resolved, That the Secretary of this Society immediately advise the membership of this resolution, which shall thereupon become effective and in full force.*"

Speaker Gundersen: Is there any discussion on this resolution?

Dr. Sargent: What membership is involved or what group?

Secretary Crownhart: Various groups. Their immediate operations were in the north central, northwest and in the central south. May I say, further, that final decision may not be made here tonight, but discussion can be had and it may be referred to the Resolutions Committee. This resolution was printed in the August issue of the Journal, but I am redistributing it in case some may not have seen it.

Dr. Gramling: I move the action of the Council be sustained.

. . . The motion was seconded by Doctors White, of Rice Lake, Minahan, of Green Bay, and Reinhardt, of Fountain City . . .

Speaker Gundersen: The matter is open for discussion. There should be no hesitancy on the part of any member of the House to express his views on the subject.

Dr. Rector: As Chairman of your Economics Committee, I was requested last week to meet a group of physicians in four counties in our part of the State to hear this finance company present its proposition. I have heard and met a good many collectors, mostly to my sorrow, and I must say they are the smoothest group I have ever listened to. They are so smooth that our members are eating it up. They have changed their wording somewhat in the presentation of it as given by Mr. Crownhart. They give the membership of your State Society whom they contact the idea they have straightened up and amended the objections that our Secretary, Mr. Crownhart, offered before the Banking Commission. They want the united effort and cooperation of the county society. They are not asking county society action on the matter, but they are continuing the subterfuge just the same.

They claim to set up a credit bureau in that they have the right to go into your office and go over your books, select the accounts, and build their credit bureau from your account. It has some helpful parts for the physician, unquestionably, because it gives him the opportunity to know that some of these people have not only failed to pay you but have also done that with the other man. They have a few selected cases wherein they tell of the wonders they have been able to produce. I think it is a good thing in some ways for the members of the Society to realize the people who drift about different places for different things. On the other hand, I am very fearful of the proposition. I am fearful of what will happen when the politician gets hold of the matter, and I assure you they will have first-hand information when they are ready to act. If you want to go ahead with state medicine, open the way for our membership to join an organization of this kind; it is dangerous.

Secretary Crownhart: Does any member of the Society who is not a delegate of the House wish to speak on the question?

Dr. Munn (Janesville): Members of the House of Delegates: 'I did not intend to say anything in regard to this resolution, but when I first read it I saw fire and I still continue to see fire. For many years, the doctor has had the privilege of collecting his accounts as he saw fit. We have paid collection agencies money out of our own pockets for listing our accounts. I have been so disgusted with fake collection agencies that I refused to give these people an audience until I found they were working along the line of a plan which I have advocated for many years. I feel that we as physicians have to unite in some constructive effort to protect ourselves against people who do not intend to pay their bills. I have worked with members in my own county along this line. I feel it is nearer the ideal of some-

thing for the protection of doctors than anything ever promoted in the medical profession.

Things have changed since back in Hippocrates' time. I even had to buy my automobile on the installment plan, and I think a great many of the rest did. We paid a great rate of interest. Disregarding Mr. Crownhart's remarks about the amount, I know it is not costing our membership as much for collection by this company as to pay some of the expenses I have had to pay for advance finance on my automobile.

The thing which has appealed to me has been the credit rating bureau. It is early in its inception, I will admit, and it is not working to the extent it will work in the future. However, we are getting a rating on many people who would surprise you, information in connection with the number shopping from one doctor to another, and also how many owe the members of my town and surrounding towns bills they never intend to pay.

The idea of that credit rating is to put those people on relief when they call for such service, and we will know they belong on relief. If the relief committee will not accept them, are we going to pay money out of our own pockets as we have in the past for x-ray and expensive laboratory tests to help give them medical service? It is costing every doctor who gives these patients a complete examination, money to do so. When we have those people eliminated, we come to the low-income group.

If a man has six children and is earning a wage of only $16 a week, we know he cannot pay a hospital bill and large surgical fee. We have proposed in our own county among our own physicians this plan, that is, through the cooperation and rating we have obtained through this association, we lower our fees accordingly to get that man back to work. I maintain such an act on the part of physicians is running their own business. Setting their own fees, not allowing some social worker or somebody else to tell them how they are going to do it, or how they are going to proceed will prevent state medicine more than any other thing physicians can do.

I may be taking an arbitrary and contrary stand in this matter, but it is a thing of vital importance to every physician in the State of Wisconsin. Before you pass that resolution, I implore the House of Delegates to analyze that question from both angles. These people are willing to cooperate in any way they can to perfect their organization in such a way as to be of service to the medical profession in the State of Wisconsin and I do not feel from the contacts I have had with them that they have an undesirable kind of organization. Perhaps I am one of the gullible fellows who swallow it, bait and all; however, I feel that I have the power of reasoning and that I have analyzed this about as carefully as some of the rest. I can see no harm in this plan and can see benefits if it is carried out with the intent for which it was organized; this credit bureau to me is one of the biggest helps the medical profession is going to have.

Dr. Clark (Janesville): The members of Rock County, as Dr. Munn has said, accepted this proposition. We investigated these men and learned from physicians in Wausau who knew them that they were high-grade businessmen. They assured us they met the objections raised by Mr. Crownhart and the Banking Commission in every respect and were complying with the law. They hold both the small loan and loan and discount license in the State of Wisconsin.

Mr. Crownhart said they were charging much more than the small loan people. The legal rate, as I understand, is 30 per cent for small loans, 2½ per cent a month. One illustration that is concrete is one in which the patient owed $200 and was charged 10 per cent for financing that. That same patient, to my knowledge, has financed other services for several years at a rate of 30 per cent. That one instance refutes Mr. Crownhart's stipulation that these people were charging more money than the small loan companies. They may be in some instances, but I have cited one instance of which I have personal knowledge.

I think most of you men who practice medicine have practiced for some years and know some of the difficulties, especially in the last few years, in regard to collection. On our bad accounts, we have to pay the ordinary collector 50 per cent. On newer accounts we pay them all 25 per cent, so we are not reducing our bills. We are carrying most of our people; from those who are good we are collecting a large part of the money. The people from whom we do not collect are those we cannot get payment from by sending bills for two or three years, or requests to come into our office to make some arrangement to reduce the amount. The only way we can get the money is to send somebody after them or spend the time we should spend in practicing medicine going after them ourselves.

There is another angle which I would like to reiterate. Most of us are over the milk bottle age. We have conducted our own businesses and if we are dictated to as to how we shall run our personal business at the expense of being expelled from our Society (and it is our Society, if you please), at the expense of losing our hospital staff memberships and our means of livelihood, in my humble opinion it is going a long way. Perhaps I am wrong,—if I am, I am willing to be corrected.

There is just one other statement we have from these people. We were told that one member of the Council who sat in judgment on the rest of us uses this service. Whether that is true, I do not know.

Dr. James A. Jackson (Madison): I wonder if there is not some misapprehension on the matter Dr. Munn brought up. I may not be entirely familiar with the details of the organization at Janesville. I understand it is a credit rating association and collection agency, but has nothing to do with making loans to patients. They have exactly the same organization in Madison under the Bureau of Commerce, a rating bureau with a collection agency. I

cannot see anything about this resolution that has anything directed against such an organization. Maybe I am wrong, but it seems there is misapprehension. It is not directed against a collection agency of that type which does not charge interest on these accounts.

Secretary Crownhart: If the collection company is not inducing patients to make loans to it or to some other company, it is a different matter. Do I understand, Dr. Munn, the Marathon Finance Company makes no loans in Rock County to patients from whom it is collecting?

Dr. Munn: They have made some advance payments, financed loans, taken a mortgage upon a team of horses or an automobile, and paid the doctor.

Dr. Jackson: There is a credit association in Janesville similar to the one in Madison and I thought that was to what he was referring.

Dr. Clark: The loan is not made as Mr. Crownhart drew it on the board, that is, to the patient and then to the doctor as the money is repaid. They have corrected that entirely, as I think Mr. Crownhart knows. That first stipulation of how the company was operating was somewhat misleading, I think, and I think that has been changed to comply with the request of the Banking Commission. I would like to ask Mr. Crownhart if there is anything, in his opinion, in the operation of this company today that does not comply with the requirements of the Banking Commission and with the laws of the State of Wisconsin.

Secretary Crownhart: I would say, Dr. Clark, that that would have to be answered in the opinion of legal counsel in the affirmative on several points, those that I mentioned. I want to support your statement that the original plan of the Marathon Finance Company, as I drew it in a diagram on the Board, is not the plan under which they are now operating. They do not charge the patient an infinite interest rate. They pay the doctor his amount as soon as it is paid by the patient.

Dr. Clark: In what respect do they not now comply with the Banking Commission and the laws of the State of Wisconsin?

Secretary Crownhart: The Banking Commission has a Consumers' Division interested in protecting the rights of the consuming public on certain affairs that come within the jurisdiction of the Banking Commission. The licensing of small loan companies, on one hand, that can charge a maximum of 18 per cent interest and licensing of discount companies that can collect 10 per cent interest in advance are both within the jurisdiction of the Banking Commission, as is the licensing of banks. As a result of this conference, the Banking Commission laid down certain points with which it felt this company and all other companies operating in Wisconsin should comply.

Legal counsel for our Society feels the new plan does not comply with some of the points laid down by the Banking Commission. The Banking Commission said there should be no bookkeeping loans. As I understand, there are none in the plan. Quoting from the Banking Commission: "No method of operation should be adopted which uses the relationship between debtor, creditor, and loan company for the purpose of subterfuge to induce loans to be made which would not be made in the ordinary course of the loan business." I believe the plan violates that point. Notes must be made payable directly to the creditor. That is done.

Interest is to be added by the creditor only. In the contracts submitted to me from various parts of the State, it specifically states this interest may be added by the company and retained by them as part of their collection fee in addition to the percentage of the original amount they retain for collection purposes. Full proceeds of the loan must be paid at once to the creditor. Then the Commission made a general recommendation which probably refers to preceding legislation. "Subsequently it is better for loaning agencies to operate separately." They did not say, Dr. Clark, that they had to.

May I reiterate once more for the entire membership present that the Council is only trying to discharge its duties as it sees them. It present the whole question anew to you, disregarding the Council action, for you to act on your own judgment. If you think it is something that will reflect on the profession so as to endanger its standing, presumably we need something to stop it. If it is not, the resolution should be repealed. The Council asks for your independent judgment in this matter. We have the question before us of adopting the resolution according to the motion made by Dr. Gramling. If the House wishes to delay action on this question until tomorrow night, it is at liberty to do so.

Dr. Heidner (West Bend): I think the whole question is relative to this blacklisting idea; how we can get away from the proposition of refusing medical attention to those in need because they are on such list.

Secretary Crownhart: Dr. Heidner, do you refer to the point in this contract?

Dr. Heidner: Dr. Munn intimated they had made some special arrangement to get around that point or that part of the contract which says they would bind themselves to cooperate in withholding medical service from certain people. I do not know how that is corrected in the plan now in operation.

Secretary Crownhart: In the plan now in operation, as known to me, according to the mimeographed copies as distributed in the State in the last month and sent to us for analysis, this sentence appears "Cooperative assistance in making it impossible for persons who are able to pay but will not, to obtain medical service." I think there is clear liability in that statement in case the question should come up sometime.

Dr. Sisk (Madison): I would like to have some time to read this resolution. It seems to be an interesting piece of reading matter. I move that action be deferred for twenty-four hours or until tomorrow evening.

. . . The motion was seconded by Dr. Lettenberger of Milwaukee and carried . . .

Dr. Peterson: I move we rise from executive session. The motion was seconded by Dr. Gramling and carried.

New Charter

Secretary Crownhart: On the Secretary's desk, the next order of new business is the proposal, approved by the county society concerned (Columbia County), that a new charter be granted to them, that this Society be known as the Columbia-Marquette-Adams County Medical Society and the Society of Green Lake-Waushara-Adams be known as the Green Lake-Waushara County Medical Society. The Columbia County Medical Society now holds within its membership every practicing physician a member of the State Society residing in either Marquette or Adams County. Marquette County is not organized and Adams County is a part of Green Lake and Waushara. Does this meet with your approval and shall this House approve issuing a new charter accordingly?

Dr. Sargent: I move the issuing of such charter be approved by this House of Delegates.

. . . The motion was seconded by Dr. McMahon, of Glenwood City, and carried . . .

Foreign Schools

Secretary Crownhart: Another order of business is a hold-over from the last session. Dr. Hipke, of Milwaukee, introduced a resolution recommending that the Board of Medical Examiners be requested to adopt a rule requiring that only physicians who have full force in recognized colleges of the United States or of a country that accepts a diploma from a recognized school of the United States on an equal basis with their own be licensed to practice medicine in the State of Wisconsin. It was held over one year pending action of the Board of Medical Examiners. The resolution has been transmitted by the Secretary to the Board of Medical Examiners in separate communication. Is there a member of the Board of Medical Examiners present who can tell us whether this rule has been adopted by the Board?

Dr. Gramling: Such a rule has not been adopted by the Board, but I think the members of the Board are 100 per cent for some such regulation. I think you first have to have some action by the legislature. The statute reads that the Board cannot be arbitrary in its rulings. We go a great deal by the American Medical Association. If they rate a college Class A, it is very difficult under the present law for the State Board of Medical Examiners to refuse to grant such a person a license. If the American Medical Association would refuse such rating it would be easy for our Board not to recognize those schools. They might mandamus the Board and if the school is recognized we would be considered as acting arbitrarily which is against the law. But I certainly believe if the law is not sufficient something should be done in the incoming legislature in January to empower the State Board of Medical Examiners to put that into effect.

Secretary Crownhart: Would it meet with the approval of the other members of the Board if such legislation covering the above suggestion be presented to the legislature in the coming session? Would it meet with your approval, Dr. Gates? (consent) Dr. Koehler? (consent). With that in mind, would it now be satisfactory to you, Dr. Hipke, if the resolution be referred to the Committee on Resolutions? (Consent)

Speaker Gundersen: It is so referred.

Radiology—Pathology

Secretary Crownhart: At the last session of the House of Delegates in 1935, you adopted a resolution relative to radiology and pathology, asking every medical society to set up its own grievance committee to consider cases referred to it in which violation of the code of ethics had occurred. This resolution was mimeographed and sent by the Secretary, ten days after adjournment, to the secretary and president of each county medical society. Subsequently the Council had before it a letter from a radiologist in Milwaukee, president of the local Radiological Society, asking that a copy of the resolution be sent to each hospital. The Council had some doubts about that for the reason it did not think the original wording of the resolution, while clear to physicians, would be equally clear to lay hospital boards; in the second place, it had some doubts about sending the original resolution for the reason that probably violations were not occurring all over the State and there were many hospitals which were not particularly concerned. For that reason, the Council referred the resolution back to the House. Do you wish to do anything in connection with this resolution this evening?

Dr. Sisk (Madison): This is a subject very near to my heart. It touches my specialty. I do not want the Council, the House of Delegates, or the State Secretary to send my hospital any letters about this resolution. This matter of relationship between hospitals and radiologists and pathologists is, in the final analysis, a local matter. A resolution was presented in the House of Delegates last year giving relief in any local situation in which there was a unanimity of opinion that the code of ethics of the American Medical Association and its subsidiary contingent organizations was being violated.

I recognize that in some communities the services of physicians are prostituted to lay organizations. I recognize that the income derived from the practice of the physicians is being distributed to the profit of these lay organizations, but I believe, in the final analysis, you are going to get into a controversy that would take us years and years to live down if we proceeded from state headquarters in a matter which can be amicably settled among the staffs of the hospitals, the radiologists and pathologists, and the local board.

Let me say to my fellow radiologists in this State, as I said to them last night, that if your staff of physicians and surgeons in general surgery and general medicine does not think enough of you as a practicing physician to support you as a physician, then there is something wrong with the whole profession. If we as doctors in radiology, or whatever speciality it may be, have not enough respect for each other as consultants to sit down and talk this over and in some way present our problem to the hospital board, we have a long way to go. We can work it out as doctors,—radiologists, pathologists, pediatricians, obstetricians, or whatever it may be. If the hospital is employing a radiologist, the obstetrician is going to be next; he is employed by the hospital in some communities. It is but a short step in this State to the employment of surgeons by hospitals. This problem is a matter of common ethical relationship among doctors of specialties, whether ear, nose, and throat men, radiologists, or pathologists. Gentlemen, we have to work together on this thing and get it through as one to our hospital board. We can use the machinery already created, the grievance committee appointed in the local society. If we fail in the local society through the grievance committee, we have the avenue of appeal to the Council on the specific proposition, and I dare say the Council will give us assistance. But I do not think you will get anywhere by sending a mimeographed letter to the hospitals in the State calling the matter to the attention of the lay board.

Sometime soon each county medical society should have a meeting of the grievance committee and invite in everybody who has something to discuss for the good of medicine in its relationship to hospital practice. Do not limit such discussion to radiology and pathology, but include also hospitals with relation to the medical profession and to each of us as doctors. I feel deeply on this subject and think it is a local proposition. My associates in my specialty and those in other specialties in this city can sit down and work this out together, as can fellow specialists in Milwaukee and other parts of the State, and we will support each other. The time will come when we will solve local problems as local doctors rather than by putting the pressure on from elsewhere.

Speaker Gundersen: I take it the House of Delegates wishes to take no action on this resolution. It was referred to the House of Delegates for its action if it so desired. Hearing no further comment, we will pass on to other business.

Annual Re-Registration

Secretary Crownhart: At the 1935 session of the Wisconsin legislature, there was introduced in the closing two weeks of the session a bill to provide that the investigator, who presently operates under the State Board of Health to weed out quacks and enforce the basic science law and laws relating to medical practice, be transferred from the State Board of Health to the State Board of Medical Examiners. I asked the sponsor of the bill if he would cause the bill to be withdrawn, so I might place this question before the House of Delegates; that it was my understanding that the bill was not in accordance with their wishes. He graciously consented to do so. The bill could not be withdrawn but was killed. We presented the subject matter at the 1935 session of the House, and the members of the Board of Medical Examiners were invited to be present to discuss it with the House. The Secretary of the Board at that time asked that it be postponed for the 1936 House of Delegates. It was postponed and is now before you. The Secretary has nothing further to say except he feels he would fail to discharge his duty unless he told you of two points. An appropriation of $2,500 is made through the State Board of Health, the amount being reduced from $5,000 as an economy measure. It is but one part of the whole appropriation of the State Board of Health and does not stand out particularly as a separate item.

The State Board of Health, recognizing that $2,500 was an insufficient amount upon which one could travel, supplemented that amount, upon our request, from the Social Security Fund, as a proper function of the Board of Health. In this way the activities of the investigator, heretofore curtailed because of lack of money for travel, have been extended without securing a new appropriation from the legislature. In the second place, when he operates under the State Board of Health, in the opinion of your Secretary only, it is easier for him to evade the cry of persecution, for it then becomes evident to a lay jury that the licensing law is exactly what it is,—a health law to afford a minimum of protection to the public.

The Board of Medical Examiners has the feeling, as has been expressed, that the investigator should be under their jurisdiction, and there is much to be said for that. Your Secretary feels his actions in the 1937 legislative session and presumably the action of the members of the Board, who are all members of this Society, with one exception, the osteopathic member, should be governed by your wishes.

This is something your Society secured. It is unique in that you do not finance it, but it comes from the general funds of the State. Your Secretary has some feeling that perhaps we might jeopardize that appropriation, but he may be wholly wrong about that. Do you wish this appropriation and the duties of the investigator transferred to the Board of Medical Examiners? That is a question which is left over from the 1935 session and is now before you.

Dr. Giesen (Superior): The Board of Medical Examiners does not wish to enter into discussion of this matter.

Secretary Crownhart: We have invited here tonight, by letter, every member of the Board of Medical Examiners to be our guest and participate in the discussion. As I understand, Dr. Giesen, the Board does not wish to participate in the discussion

and leaves the matter to the House. Would the members of the House like to have it referred to the Resolutions Committee?

Dr. Sproule (Milwaukee): I move it be referred to the Resolutions Committee.

. . . The motion was seconded by Dr. Mauermann and carried . . .

Secretary Crownhart: That clears up the business on the Secretary's desk which was held over from the last session.

Speaker Gundersen: The House is now ready to consider any other proposals which come under the head of new business.

Secretary Crownhart: Under the By-Laws, the House determines the time and place of the second and third meetings. In accordance with custom and precedent, the Secretary actually sets that time to fit into the program, so there will be no conflict. The Secretary has set the time of the second meeting for 6:45 tomorrow evening, Great Hall, Memorial Union Building, in which all scientific sessions will be held.

Dr. Sargent: I move this session of the House of Delegates adjourn to meet again at 6:45 tomorrow evening.

. . . The motion was seconded by Dr. Mauermann and carried, and the meeting adjourned at 11:15 p. m. . .

(Adjournment)

SECOND SESSION

September 9, 1936

The second session of the House of Delegates, the State Medical Society of Wisconsin, was called to order at 6:45 p.m. in Great Hall, Union Memorial Building, Madison, Wisconsin, by the Speaker, Dr. Gundersen.

Speaker Gundersen: The second session of the House of Delegates will please be in order. We will first have the report of the Credentials Committee by Dr. Peterson, the Chairman.

Credentials Committee

Dr. Peterson: Mr. Speaker, your Committee on Credentials is pleased to report at this time a registration of forty-four members of the House, including three councilors. No questions have been raised relative to the seating of delegates or alternates. Slips for this purpose have been distributed. I move the attendance record so compiled constitute the roll of this session.

. . . The motion was seconded by Dr. Powers, of Milwaukee, and carried . . .

Speaker Gundersen: The next report is that of Reference Committees. We will first have the report of the Reference Committee on Reports of Officers and Standing and Special Committees, Dr. Hipke, Chairman.

Report of Reference Committee on Reports of Officers and Standing and Special Committees

Dr. Hipke: Mr. Speaker and Delegates: Your Reference Committee on Reports of Officers and Standing and Special Committees of the Society met this morning for three hours to review in detail the work of the past year.

Membership. The Committee commends the action of the Society in increasing its membership in spite of the fact that the dues were restored.

It is recommended that a larger and more effective certificate of membership in the State Medical Society of Wisconsin be placed in a conspicuous place upon the walls of the offices of the members of the State Society, with the understanding, however, that this certificate be recallable upon the termination of membership.

I move the adoption of this recommendation.

. . . The motion was seconded by Dr. Mauermann and carried . . .

Dr. Hipke: *The Journal.* We believe that the Journal is an attractive and well edited publication deserving of commendation and hope that its advertising and scientific content may be increased.

I move the adoption of this portion of the report.

. . . The motion was seconded by Dr. Gates and carried . . .

Dr. Hipke: *Committee on Scientific Work.* This Committee recommends an amendment to the Constitution to discontinue the formally created Committee on Scientific Work and to create a Council on Scientific Work. It also believes that the teaching of fundamental subjects should be emphasized in the postgraduate courses rather than the more specialized subjects.

. . . The motion was seconded by Dr. Peterson, of Sun Prairie, and carried . . .

Secretary Crownhart: Mr. Speaker, may we now have a motion to adopt the amendment to the By-Laws presented last night and laid on the table in accordance with the recommendation of this committee creating a Council on Scientific Work in place of the Committee on Scientific Work. The purpose is to have better continuity and five men handling the program instead of three.

Dr. Sisk: I move the By-Laws be so amended.

. . . The motion was seconded by Dr. Reinhardt and carried . . .

Dr. Hipke: *Medical Library Service.* It is recommended that the following lines in black type be run in each issue of the Journal. Use the **Medical Library Service which is free to you.**

I move the adoption of this portion of the report.

. . . The motion was seconded by Dr. Neilson, of Milwaukee, and carried . . .

Dr. Hipke: *Committee on Public Policy.* (1) We believe that the question of the elimination of questionable advertising can best be handled within the county society. We commend, however, any legisla-

tion that is found possible of constitutional enactment. (2) We highly commend the physical examination of automobile drivers and recommend that legal steps be taken in this direction.

I move the adoption of this portion of the report. . . . The motion was seconded by Dr. Caldwell, of Columbus, and carried . . .

Dr. Hipke: *Medical Economics.* We highly commend the action of the Society in this field.

I move the adoption of this portion of the report. . . . The motion was seconded by Dr. Smith, of Milwaukee, and carried . . .

Dr. Hipke: *Prevention of Goiter.* We commend the activities of the Committee on the Prevention of Goiter, but believe and urge that the committee give concrete recommendations to the county societies as to prophylactic methods in the treatment of endemic goiter which meet with the approval of medicine.

I move the adoption of this portion of the report. . . . The motion was seconded by Dr. Gates and carried . . .

Dr. Hipke: *Committee on Legal Service.* The Committee commends the extensive legal service afforded constituent societies and the membership through the office of the State Society.

I move the adoption of this portion of the report. . . . The motion was seconded by Dr. Hildebrand and carried . . .

Dr. Hipke: *Committee on Health Education.* The committee has reviewed the work in the field of health education and feels that it is a valuable part of the Society's program. We feel, however, that more emphasis in the future, both in radio talks and press notices, may well be placed upon the importance of seeking the service of physicians who are qualified by membership in the State Medical Society of Wisconsin.

I move the adoption of that portion of the report. . . . The motion was seconded by Dr. Mauermann and carried . . .

Dr. Hipke: *Wisconsin Hospital Association.* The Committee approves of the activities of the Secretary in carrying forward the work of the Hospital Association wherein the aims are identical with those of our Society. We believe this affords a valuable and necessary contact.

I move the adoption of this portion of the report. . . . The motion was seconded by Dr. Stiennon, of Green Bay, and carried . . .

Dr. Hipke: *Committee on Cancer.* The work of the Committee on Cancer has been reviewed and not only meets with our approval but deserves the particular commendation of the House.

I move the adoption of this portion of the report. . . . The motion was seconded by Dr. Neilson, of Milwaukee, and carried . . .

Dr. Hipke: *Committee on Coordination of Medical Service.* The work of this committee is valuable and should be continued.

I move the adoption of this portion of the report. . . . The motion was seconded by Dr. Orchard, of Superior, and carried . . .

Dr. Hipke: *House of Delegates. The Practice of Roentgenology and Pathology.* It is recommended that this matter be referred to the secretaries of the county medical societies whose membership includes employed radiologists and pathologists, with the request that a hearing be held by their Grievance Committees, where grievances exist and that appropriate steps be taken. We do not recommend that the State Society communicate direct by letter with the hospitals on this subject.

I move the adoption of this portion of the report. . . . The motion was seconded by Dr. Ryan, of Milwaukee, and carried . . .

Dr. Hipke: *Medical Defense.* We believe that the recommendation of the Committee on Medical Defense that members desiring medical defense make prompt report to the Society as soon as they have knowledge of threatened malpractice suits, should be followed.

I move the adoption of this portion of the report. . . . The motion was seconded by Dr. Mauermann and carried . . .

Dr. Hipke: *Delegates to A. M. A.* We recommend that Dr. J. Gurney Taylor's very lucid report on Delegates to the meeting of the American Medical Association be accepted as read.

I move the adoption of that portion of the report. . . . The motion was seconded by Dr. Neilson and carried . . .

Dr. Hipke: *Preliminary Report, Committee on Institutional Care.* We commend the report of this committee and request that it be forwarded to the officers of each county medical society in counties in which there are county asylums, to the end that the county society may exercise its influence in assisting to carry out the recommendations of the Committee, and that the State Board of Control also be contacted; the latter through the office of the State Society.

I move the adoption of that portion of the report. . . . The motion was seconded by Dr. Peterson and carried . . .

Dr. Hipke: *Advisory Committee on Crippled Children.* The Committee recommends the adoption of this report.

I move the adoption of this portion of the report. . . . The motion was seconded by Dr. Hildebrand and carried . . .

Dr. Hipke: I move the adoption of the report as a whole as respectfully submitted by the Committee on Reports of Officers and Standing and Special Committees as follows: L. W. Hipke, Chairman, H. B. Keland, A. J. Gates, and R. G. Arveson. Dr. Twohig was absent on account of a death in his family.

. . . The motion was seconded by Dr. Ohswaldt, of Oconto Falls, and carried unanimously . . .

Speaker Gundersen: We will next have the report of the Resolutions Committee, Dr. A. E. Rector, of Appleton, the Chairman.

Report of Committee on Resolutions

Dr. Rector: Mr. Speaker and Members of the House of Delegates: Your Committee was in session this morning from eight-thirty until twelve and again this afternoon from five to six. We wish to express our appreciation to the members of the Society who joined with us in the discussion of material presented to us.

Resolution Number 1, submitted by Dr. J. N. Sisk, of Madison.

"WHEREAS, *Sec. 4, Article VI, Chapter III of the Principles of Medical Ethics of the American Medical Association provides that:*

> *"'It is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group or individual by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary or compensation received to accrue to the lay body or individual employing him. Such a procedure is beneath the dignity of professional practice, is unfair competition with the profession at large, is harmful alike to the profession of medicine and the welfare of the people and is against sound public policy'; and*

"WHEREAS, *Any individual, group or organization however formed or by whatever name called who shall provide or who shall propose to provide or make available medical service or hospital care or both to any person or group of persons is obviously purposing and proposing to make available the service of a physician or physicians; and*

"WHEREAS, *Any plan for the distribution of medical service or hospital care in any manner or through any agency that does not insure the unrestricted free selection of his physician by the patient himself is fraught with harmful implications and dangerous possibilities alike to the profession of medicine and the welfare of the people; therefore be it*

"Resolved, By the House of Delegates of the State Medical Society of Wisconsin

"That, the Board of Censors of the constituent medical society having geographic jurisdiction shall consider the terms, provisions and implications of any proposed method or agency that may appear to provide for the distribution of or making available medical service or hospital care other than by permitting the unrestricted free selection of his physician by the patient himself and said county society shall submit such plan, together with its findings, to the Council of the State Medical Society of Wisconsin for its determination; be it further

"Resolved, That any physician or group of physicians before becoming party to or in any other way agreeing to foster or cooperate in any such agency or method for the distribution of medical service or hospital care shall submit the full plan to his county medical society for its consideration and for Council determination; be it further

"Resolved, That any physician or physicians violating or evading this resolution or any of the terms hereof or who shall fail to abide by the decision of his county medical society in these premises as determined by the Council of the State Medical Society of Wisconsin shall be required to appear before the officers (president, vice-president, secretary, treasurer, and delegates or alternate delegates only) of his county medical society and show cause why he should not be charged with unethical conduct under Sec. 4, Art. VI, Ch. III of the Principles of Medical Ethics above quoted and be disciplined in such manner as may be determined by his county medical society."

. . . The motion was seconded by Dr. Twohig, of Fond du Lac . . .

Speaker Gundersen: As I understand it, that resolution provides briefly and pointedly that henceforth before one enters upon plans or makes contracts that involve the distribution of medical service he must submit such plan or contract to his county medical society and, if necessary, to the Council for determination as to its ethical standing.

Dr. Rector: That is the complete thought of the resolution.

Dr. Cunningham: The resolution states that he shall appear and show cause why it should not be unethical conduct. I was wondering whether it should not be stated as definitely unprofessional.

Secretary Crownhart: I believe, Dr. Cunningham, that perhaps your point is right, but I think the resolution stated originally that it is unprofessional. The question is just a matter of handling, in order to bring the complaint before someone other than the Board of Censors who may file a charge.

Dr. Cunningham: It does not so state "violating professional conduct."

Dr. Sisk: The way it was originally drafted it said "is hereby determined to be guilty of unethical or unprofessional conduct," but you cannot convict a man until he has had a hearing so we are giving him an opportunity to appear and show cause why he should not be charged and tried. I think everybody is entitled to a trial.

Dr. Cunningham: It should be stated to show he had been violating this.

Dr. Sisk: I do not think you could put him on trial until you invited him before the Board of Censors and let him state his case. You have to bring him in and say, "Doctor, you have done so and so. You didn't abide by our regulation."

Dr. Cunningham: You still have not stated the penalty.

Dr. Sisk: I think the penalty is to be determined by the county society.

Dr. Sproule (Milwaukee): I would like to ask whether that includes old contracts which are renewed annually. Most of the contracts of the State are renewed every year and if that is true it applies practically to all old existing contracts.

Dr. Rector: This does not provide for old contracts; we did not enter into a discussion of that. This resolution came up for a special purpose for which the participants wished to have a ruling, and we have covered that one phase.

Dr. Sproule: I think the contracts are renewed annually.

Dr. Ohswaldt: I would like to ask what bearing this resolution has on the contracts the various counties have with the relief organizations

Secretary Crownhart: This has no bearing upon contracts entered into, as I understand, between the county medical society and the relief agencies. It refers to individual members making individual contracts.

Dr. Ryan (Milwaukee): Many of these contracts are elective and competitive yearly. I do not know the situation throughout the whole State, but many society contracts that have been in existence for years are elective by a body in the society in which the medical service is granted; consequently unless the man is elected his previous contract expires. The way you have worded this resolution, I cannot see how you can legally avoid renewal of contract as being unprofessional and unethical. If another man defeats me, for instance, on an elective job he must make a contract which he previously did not have. So an elective position, I think, would fall definitely under the terms of this present resolution. I think that should have further discussion and thought.

Dr. Sproule: It would also apply to all legal contracts in Milwaukee.

Dr. Hildebrand: I would like to ask one more question. It is not clear whether the man who acts as city physician or county physician is included.

Secretary Crownhart: I can only give my own interpretation, but I would say he most certainly is.

Dr. Stiennon: This resolution, as I see it, applies merely to those contracts which are about to be undertaken, but does not apply to those contracts that have already been signed and are in operation. It obviously would be unfair to say that all future contracts should be examined by the county medical society and ignore those contracts already existing. It does not appear in the wording that that is clear.

Dr. Rector: There was some discussion on that question, and, as you know, it has been brought up in the past. There are old outstanding contracts, we are aware. We know in many instances that there are contracts held by men who would gladly surrender them if assured that no other member of the Society could take them up. Your Committee felt that this resolution was an answer particularly to questions on new types of contracts that are facing the Society members at this time. However, according to my idea of this resolution, your county society should decide what they wish to do about it. Your membership really should consider local conditions in determining what should be done in your own community.

Dr. Leo A. Hudson (Sauk City): I rise to secure a little more information. You are going to pass some sort of ruling here to prohibit the making of future contracts and at the same time apparently there are a lot of contracts already made. What are those contracts. What are they like? Why should we try to protect those contracts? Why make it future contracts? What type of contract has already been made by the medical profession? If those contracts are so delicate, why must they be so protected?

Dr. Rector: It is not the spirit of the Resolutions Committee to discuss what has existed for years in the Society. We did deem it advisable to apprise you of conditions as were brought to us by members of this House of Delegates and to try in part, at least, to stop the continuance of new methods of unethical employment. The contracts will gradually die out under a ruling of this kind, and if they are renewable contracts, my views are that under this ruling you will be able to ask your members to come in and discuss them with you, and reach your own local conclusions.

Dr. Sisk: Mr. Speaker, is it in order to ask the House in the middle of this discussion to go into executive session? Is there a motion before the House?

Secretary Crownhart: There is a motion before the House but we could go into executive session.

Dr. Sisk: I move that the House go into executive session.

. . . The motion was seconded by Dr. Mauermann and carried . . .

Secretary Crownhart: The staff will act as sergeants at arms. This motion now means that no person may remain in the room who is not a member in good standing of the State Medical Society of Wisconsin.

Dr. Sisk: Mr. Speaker, may I state my position on this resolution? Gentlemen of the House of Delegates: I want to give a brief background, if I may, of this resolution. It was brought to the attention of the trustees of the Dane County Medical Society recently that there was a cooperative organization for the purpose of buying and selling real estate, borrowing and lending money, buying and selling merchandise, planning and building structures of various types, and making available to its members medical and hospital service.

Our organization may be unduly impressed with the implications of such a charter as has been issued by the Secretary of State, but with the present trends in economics and the agitation by various and sundry organizations headed by what we sometimes call the professional reformer, we feel that the

time is auspicious to take a look at some of these trends before they become traditions in the practices of the community.

We have no insidious motive in the introduction of this resolution, purposing to look into contracts with any of your substantially established clients, for example, your insurance company. We have not gone into the matter of the physician who is taking care of some large industrial plant. I dare say we could sit here tonight and bring up all kinds of trouble. However, if we stick reasonably close to the provisions of that section of the Code of Ethics that provides that no lay organization shall make a profit from the services the physician renders sick people, then I do not see where we need have any fear of its working material hardship upon the members of this organization. It seems to me that those existing contracts that offer unfair competition to the profession at large might well be construed to come under this resolution. If I had a contract with a corporation from which I was receiving a stipend of a certain number of cents per month per employee and I were the only physician who could serve the employees of that corporation, I should expect that my contract would be scrutinized at least in the minds of some of my associates in the city in which I practice.

I do not believe it is consistent with the Code of Ethics under which I profess to practice to create a monopoly in any community to individual advantage that will deny the patient the privilege of unrestricted free choice of physician.

I have had called to my attention today a number of contracts of corporations that have some sort of arrangement whereby their employees pay in a certain amount of money that provides for medical care. I have been advised that the panel is very limited, and that is the kind of contract we do not want to have promulgated. If the contract is with a "cooperative" that has a group of 500 people organized for the provision of medical and hospital care and limiting a family to a physician, we want to eliminate it. The corporation that is limiting the rights of a small family is limiting the rights of a free citizen.

There is now spreading in this country a great institution called credit unions. There is no reason why that credit union should not canvass its membership and say that for a certain percentage of the funds paid into this credit union each month they will set aside a certain portion; they will make a contract with Doctor _____ to deliver all the obstetrical cases at $15 per case and make a contract with Doctor _____ to do all the appendectomies, and so forth, which may arise within the confines of the membership. That is very definitely limiting the free choice of physician within the membership of that credit union. You may not believe it although it is true, that is the "cooperative" and the credit union trend, a large number of which plans originated in Europe and are being transplanted to this country.

You have not heard a great deal about this and that kind of insurance in the last few months. The agitators are sitting back and letting the "co-ops" and credit unions take care of that situation. I might talk all evening, but I crave your indulgence in the consideration of this resolution because I foresee there is likely to be ominous results from the present social trend when the reformers and social workers bring to you large organizations that propose to set aside a certain amount of money that is available to you at a fee materially below the customary fee charged, provided you will enter into a panel to serve a limited group of people.

Dr. Ohswaldt: I just want to say something about the conditions in Oconto County. I am thoroughly in accord with the principles laid down in this resolution. But I want to say right now in Oconto County we have something that tends toward socialism. We have had an agreement in the county society itself that we would all act as county physicians, that the work shall be distributed to physicians of the patient's choice. The secretary of our society collects all the money for those patients and that is equally divided among the physicians. There are only twelve physicians in the Society, two who do no surgical work at all. Once every three months we get a check of $100.00 or $150.00. I think that is absolutely in opposition to the resolution here, and I think it should be abolished. That is the only comment I wish to make on the resolution.

Secretary Crownhart: As I understand, the doctor makes the point that the county society contracts wherein the county society agrees with relief agencies to handle relief work are not in accord with the ethics of the Society.

Dr. Ryan: Inasmuch as this resolution was submitted last evening to this House of Delegates in name only and then referred to the Resolutions Committee and the members themselves have not had an opportunity to discuss this at length with each other, I move that it be returned to the Resolutions Committee and considered again tomorrow morning.

Secretary Crownhart: Do you wish the Resolutions Committee to consider it further or to table it?

Dr. Ryan: I move that it be tabled and presented by the Resolutions Committee again tomorrow morning.

. . . The motion was seconded by Dr. Sisk and carried . . .

Speaker Gundersen: Motion is now in order that we rise from executive session.

Dr. Powers: I so move.

. . . The motion was seconded by Dr. Neilson and carried . . .

Speaker Gundersen: The House is now in open session.

Dr. Rector:

Resolution Concerning Transferal of Investigator from State Board of Health to State Board of Medical Examiners

Resolution Number 2.

It is the sense of the Resolutions Committee that the investigator for the purpose of weeding out quackery be returned to the jurisdiction of the State Board of Medical Examiners.

In making the aforesaid recommendation, the Resolutions Committee is well aware of the fact that it may become necessary in this State, as it has in other states, that when this legislative procedure takes place it may require a registration fee from all members of the profession practicing medicine in the State of Wisconsin, to maintain funds for carrying on the work of the investigator. We feel that this should not be necessary due to the fact that the investigator's work is solely for the protection of the public, both as to their health and as to saving of their income from being expended on unqualified men for health purposes. However, we still must emphasize that it has been the opinion of legislators in other states that they would not appropriate money for this purpose and insisted on the profession paying it direct by a registration fee.

We offer as a further suggestion in case the House of Delegates deems it wise, because of the possibility of a registration fee on the practitioner, to leave the jurisdiction with the Board of Health, that then this House of Delegates request, through their proper officers, that the State Board of Health make a complete report on all activities of the investigator at least every ninety days to the State Board of Medical Examiners.

Personally and not as a member of the committee, my opinion is that the matter is controversial at the present time between the two departments. I am not certain of the right procedure. It would seem from the standpoint of the Medical Examiners they should have some authority in the protection of their work. On the other hand, if we are to increase dues, I with many others feel that the money might be used for purposes that would come as a direct benefit to members of this Society rather than to spend the money as a matter of protection to the public who themselves should pay for this service.

We have left the way open for your consideration on two or three angles but move the adoption of this proposal.

. . . The motion was seconded by Dr. Hipke . . .

Secretary Crownhart: As I understand, Dr. Rector, if you adopt this resolution you are providing that your Society support a bill to provide that the duties of the investigator to weed out quackery shall be henceforth under the jurisdiction of the State Board of Medical Examiners rather than under the State Board of Health, and you move that the House adopt this, realizing there is some danger of losing the appropriation by such method.

Speaker Gundersen: Does any member of the State Board of Medical Examiners wish to speak on this? Does any member who is not a delegate wish to discuss it? Are you ready for the question? The question is on the adoption of this resolution. All in favor of adoption of this resolution will signify by saying "Aye"; opposed "No." The motion seems to be lost. It is lost.

Secretary Crownhart: By defeating the motion, Dr. Rector, before you proceed, it is understood that the Secretary is now instructed to act as intermediary to the extent he will ask the State Board of Health to report to the Board of Medical Examiners every ninety days on the work of the investigator. It is the further understanding with this action of the House that the Society will oppose the introduction of any other measure proposing the same thing, and it is the sense of the House that no member should introduce such a measure.

Dr. Rector: That is the understanding; they accept our proposal Number 3 which provides distinctly that the State Board of Health make a complete report on all activities of the investigator. We have made that rather specific.

Resolution Concerning Distinctive Certificates of License for Osteopaths

Resolution Number 3. Submitted by Dr. Ralph Sproule, of Milwaukee.

"WHEREAS, The present methods of licensing osteopaths are misleading; and

"WHEREAS, The public is given the impression that the osteopath is licensed to practice medicine; and

"WHEREAS, This has resulted in misleading impressions and unnecessary complications; be it

"*Resolved*, That this House of Delegates convey to the Board of Medical Examiners that it is their desire in the interest of public protection and understanding that the Board of Medical Examiners issue a distinctive certificate of license that will clearly indicate that the osteopath is licensed to practice osteopathy or osteopathy and surgery only."

I move the adoption of this resolution, in behalf of the Committee.

. . . The motion was seconded by Dr. Powers, of Milwaukee . . .

Dr. Ohswaldt (Oconto Falls): I should like to move an amendment, striking out the word "surgery." I doubt whether any osteopath is licensed to practice surgery.

Secretary Crownhart: Dr. Ohswaldt moves to strike out the word "surgery" since no osteopath is so qualified. May I say that between 1913 and 1917, before the Society had permanent legislative representation, such a provision was added to the law and those osteopaths licensed are licensed to practice osteopathy and surgery.

Dr. Ohswaldt: Then I withdraw the amendment.

Speaker Gundersen: Are you ready for the question on the adoption of the resolution as read? All in favor say "Aye"; opposed "No." It is carried.

Dr. Rector:

Resolution Concerning Foreign Schools

Resolution Number 4, introduced by Dr. L. W. Hipke, of Milwaukee.

In view of the fact that the following resolution was introduced to the 1935 House of Delegates and was held in abeyance for one year in the hope that the State Board of Medical Examiners would act on the matter on their own accord, and in view of the fact that the State Board of Medical Examiners has declared itself unable to act, the Resolutions Committee is presenting the original resolution to you tonight with the recommendation that it be adopted.

"WHEREAS, It is the purpose of organized medicine to maintain the highest educational standards looking towards the development of more capable practitioners;

"WHEREAS, In recent years, there has been a number of students who not being able to matriculate into medical schools of this country, have obtained medical education abroad;

"WHEREAS, These students, upon completion of their education, have returned to this country to compete with physicians educated here;

"WHEREAS, The medical profession is seriously overcrowded;

"WHEREAS, In most foreign countries a physician must have received his medical education in the country in which he practices; be it

"*Resolved*, That it is recommended by this House of Delegates that legislation be introduced in 1937 requiring that only physicians who have a full course in a recognized medical college in the United States or of a country that accepts a diploma from a recognized medical school of the United States on an equal basis with their own, be licensed to practice medicine in the State of Wisconsin."

The Committee moves the adoption of the resolution presented last year.

. . . The motion was seconded by Dr. Mauermann and carried . . .

Dr. Rector:

Resolution on Dues

Resolution No. 5. The Committee on Resolutions recommends that the dues for the State Medical Society of Wisconsin remain at $15 for the year 1937.

The Committee moves the adoption of this resolution.

. . . The motion was seconded by Dr. S. M. B. Smith, of Wausau, and carried . . .

Dr. Rector:

Resolution Concerning Committee for Investigation of Collections and Credits

Resolution Number 6. The Resolutions Committee wishes to call to your attention at this time the controversial matter of collections and credits that has been before this House and they recommend that a new committee be set up from the House of Delegates to study this matter and present a report to the House of Delegates in 1937. The membership of this committee shall consist of one man appointed in each councilor district, the appointment to be made by the Speaker of the House and the Councilor of the district from which the committee appointee comes. We suggest your action on this matter.

The Committee moves the adoption of this recommendation.

. . . The motion was seconded by Dr. Christofferson, of Colby . . .

Dr. Sisk: What is going to become of the action taken by the Council in the interim.

Secretary Crownhart: That comes up later.

Dr. Rector: This is simply a proposal to start a study of what is before us in the broad field.

Speaker Gundersen: Is there further discussion? Are you ready for the question? All in favor of the motion say "Aye"; opposed "No." It is carried.

Revised Resolution Adopted by the Council on June 27, 1936, with Reference to Direct Loan and Discount Companies

Resolution Number 7. The Resolutions Committee has carefully studied the resolution adopted by the Council on June 27, 1936, with reference to loan and discount companies. The Committee believes that the Council acted wisely and whole-heartedly recommends the continuance of this resolution for reasons as follows:

1. During the past winter, a crisis developed because of the action of a certain finance corporation, and for the advice of the membership it became necessary for some action to be taken in the matter of protection to the profession of medicine. The Council, we believe, exercised its authority by acting in an advisory capacity to the profession, it not being feasible to call a session of the House of Delegates. We believe the Council acted only in an advisory capacity. Referring to the resolution, they advised the membership that as a Council they believed that anyone participating in this scheme was party to an act that was unethical and unprofessional. They made the statement very concise and to the point. We wish to call your attention to the fact that they did not claim to have authority to expel a member and that they did not claim that they wished to expel a member, but they did state that any participant was, in their belief, engaging in an unethical practice and advised against it.

2. At our last night's session, our Secretary, at the request of the Council, returned this matter to the House of Delegates for our further consideration and final action. It is now before us for our decision.

Let me turn for a moment to the important part of the resolution as presented by the Council;

"*Now, therefore, be it resolved,* By the Council of the State Medical Society of Wisconsin, acting under the powers granted to it by the Constitution and By-Laws of this Society, that the participation in any such collection scheme by any physician, a member of any county society, and by reason thereof, a member of this Society and of the American Medical Association, shall be and hereby is declared to be an act of unprofessional and unethical conduct and, therefore, shall be and is hereby declared to be good and sufficient cause for the revocation of membership in such society."

The Council did not ask for revocation. They asked for withholding of the judgment of the membership of this Society until time could determine whether the method of procedure was correct. Your Committee on Resolutions recommends the continuance of the resolution as presented by your Council. I move the adoption of this recommendation on behalf of the Committee.

. . . The motion was seconded by Dr. Reinhardt . . .

Speaker Gundersen: Is there any discussion on this motion?

Dr. Stiennon (Green Bay): I believe that the resolution we are asked to approve tonight in so many words says we agree with the Council's resolution. Is it not true that we would say we agree with what the Council did in the interim?

Dr. Rector: The Committee on Resolutions is saying to you that after careful study we feel the Council acted wisely. We still feel that until the situation is so clarified that our members can participate in collection-loan plans without danger to themselves or their practice, with regard to their legality, they should continue to be fearful of the contracts as presented. This study was made by your Resolutions Committee without advice from any member of the Council or any such member being present.

Dr. S. M. B. Smith (Wausau): There are a great many men in the State who feel that this method of assisting them in financing their work is perfectly all right, a great many men who are recognized as being among the leading members of our profession. It would seem to me, under the circumstances, the wiser thing would be for this portion of the resolution to be referred to the committee for further investigation before any drastic action is taken.

Speaker Gundersen: Is there further discussion on the part of any delegate or any member of the Society who is not a delegate?

Secretary Crownhart: Mr. Speaker, before the question is put, on behalf of the Council, I wish to present to the House their thought. They do not wish this to be a vote of confidence in the Council. They wish you to act solely on the merits of the resolution.

Dr. Rector: This resolution was passed in the interim by the Council as a matter of advice and at the first opportunity they have returned it to the House of Delegates. It is our duty to act upon it now. (question called for)

Speaker Gundersen: The question is on the adoption of the resolution as adopted by the Council. All in favor will signify by saying "Aye"; opposed "No" (3). The "Ayes" have it and the motion is carried.

Dr. Rector: Your Committee moves the adoption of the report as a whole minus the resolution laid on the table until tomorrow morning, the first resolution.

. . . The motion was seconded by Dr. Neilson, of Milwaukee, and carried . . .

Speaker Gundersen: Motion is now in order that this House recess until tomorrow morning at eight o'clock to meet in the Hotel Loraine.

Dr. S. M. B. Smith: I so move.

. . . The motion was seconded by Dr. Mauermann and carried and the meeting recessed at 8:00 p.m., following general announcements by the Secretary . . .

(Recess)

RECESSED SESSION

September 10, 1936

The recessed session of the House of Delegates, the State Medical Society of Wisconsin, was called to order at 8:00 a.m. in the Loraine Hotel, Madison, Wisconsin, by the Speaker, Dr. Gundersen.

Speaker Gundersen: The recessed session of the House of Delegates of last evening will please be in order. The business left over from the second session is consideration of Resolution Number 1 as offered by the Committee on Resolutions. The Chair will call on Dr. Rector.

Secretary Crownhart: Mr. Speaker, since the House recessed last night, we called back our stenographic force and mimeographed the entire resolution so that each might have a copy before him and every member of the House is now supplied with a copy of the resolution.

Dr. Rector: The resolution is re-presented to you in its original form for your discussion. The Committee on Resolutions, without re-reading it, since each has a copy, presents it and moves its adoption.

. . . The motion was seconded by Dr. Sargent . . .

Speaker Gundersen: Motion has been made and seconded to adopt this resolution.

Secretary Crownhart: Mr. Speaker, there was considerable discussion on the resolution last night.

Dr. H. L. Jorgenson (Marinette): Are we discussing the resolution tabled last night?

Secretary Crownhart: We are.

Dr. Jorgenson: It occurred to me last night that this resolution would be endorsed by the local county medical society, would it not?

Secretary Crownhart: It would.

Dr. Jorgenson: Before it became active the individual who thought he was infringing upon the rules contained in the resolution would be called upon

to appear before the county medical society. I wonder if that would be the best procedure for handling that type of situation or whether it would not be better to handle it through the House of Delegates or the Council.

Dr. Rector: I wonder whether the membership of this House of Delegates is getting the point of this resolution. I do not see anything to be disturbed about. This resolution is asking for a fair consideration of your own services and fair consideration of your fellow members' services. The Dane County Society, in presenting this resolution, I am sure, is attempting to see that unfair contracts and unfair practices in the future be avoided. They are simply asking that before contracts of this kind are put in force between you and some individual or organized body you present such contracts for a fair discussion with your Society. The point is to familiarize you with those contracts if they are to exist. If you are going to put in a bid in such a matter, somebody else puts in a bid to be under you, and somebody else puts in a lower bid, why practice medicine? The thing naturally reverts back to your county society. After it is referred to your county society, as I take it, if there is any discussion, then the matter can be referred to the Council. Is that your understanding, Mr. Secretary?

Secretary Crownhart: That is correct, as I understand it.

Dr. W. M. Trowbridge (Viroqua): Mr. Speaker, I realize that this is a fine piece of work and that it is all right, but when we go back to our county societies we want to be able to explain it a little to our members. I refer to that part of the resolution as follows: "WHEREAS, any plan for the distribution of medical service or hospital care in any manner or through any agency that does not insure the unrestricted free selection of his physician by the patient himself is fraught with harmful implications and dangerous possibilities alike to the profession of medicine and the welfare of the people."

Just to cite one case,—we have the county asylum and sometimes the county hospital. That does not mean an indigent can say, "I do not like Dr. A. I want Dr. B." We will say Doctor A is the surgeon or physician at the hospital and they pay him so much a year. If an indigent should want some other doctor besides the one already hired, does that mean the indigent has to have him. Does it not mean that Dr. A can take care of all those patients who go there? I am asking for information so we can go back to our county society and tell the members about it.

Secretary Crownhart: Mr. Speaker and Dr. Rector, I would like to be corrected by those more intimately acquainted with the resolution than I. It is my understanding from the discussion last night, and particularly that from Dane County, from which the resolution emanates, that while this would be included in the resolution it is not its prime purpose. Its prime purpose is looking toward the future. Dr. Sisk, am I correct? It will be for the county society, in the final analysis, to enforce this resolution.

Dr. Sisk: That is the only place the enforcement machinery can be put into effect.

Secretary Crownhart: It will be for the local society to interpret how it shall be enforced in the community, whether it shall apply to the indigent only or shall be substantially more inclusive.

Dr. Sisk: I cannot conceive of any method by which the enforcement can be brought about except for the movement to originate in the local county society. In my opinion, there is no machinery or device in the State set-up for the enforcement of this sort of thing.

Dr. Lettenberger (Milwaukee): As I understand it, the county society would investigate and pass judgment, and I see another problem there. Suppose we do enforce this in Milwaukee County and Waukesha County does not see fit to exercise such restrictions. We have seventy-one different bodies which will proceed differently, no doubt, in many instances. If you are going to enforce this at all, why not enforce it in the entire State. I think it is a dangerous thing; it has dynamite in it. As long as you have to use hospitals, the next step is to restrict them. I think it is dangerous and I am unalterably opposed to it.

Dr. Ryan (Milwaukee): Inasmuch as I took the floor last night presumably opposed to this resolution, it is apparent that I have been misunderstood. I am not opposed to this resolution nor am I opposed to any resolution which will extend the free choice of physicians. I am opposed, however, to a resolution which will allow loopholes in its interpretation by the county societies. I had discussion with Dr. Sisk, and apparently he went away with the opinion that the Milwaukee delegation opposed his resolution. I suggest one or two changes, after conferring with several Milwaukee delegates. The change would be where it says "Be it further resolved" that you add "that henceforth" so that it would read "Be it further resolved that henceforth." Then you are including any existing contract and, as I understand, Dr. Sisk and the members of the Dane County Society are concerned about "co-op" invasion into Dane County.

If Dr. Sisk's resolution is supposed to embody just such invasion in the future, I think we should have something to that effect in this resolution. So the thought I had in mind is that the word "henceforth" should be added. In that way, you are taking an enormous sting out of the resolution. You are not altering it. The first paragraph is a quotation of the Code of Ethics governing the American Medical Association. If this paragraph is there, I see no need of the delegates being concerned about something that already exists, that has been there for years, and has been interpreted in different manners and different ways. I see no reason for a resolution embodying the same thing. If you are concerned about future invasions, as Mr. Crownhart stated,

then I think the wording should be "BE IT RESOLVED THAT HENCEFORTH." That would cover the entire multitude of changes that may come under this resolution.

Secretary Crownhart: Do you offer that as an amendment?

Dr. Ryan: I do.

Dr. Sproule (Milwaukee): I second the amendment.

Secretary Crownhart: Do you wish the amendment to appear once, Dr. Ryan or in each of the three paragraphs after the words *"Be It Resolved"?*

Dr. Ryan: In each of the three paragraphs.

Secretary Crownhart: The amendment is then that halfway down the resolution in each of the three paragraphs beginning with the following words in capital letters *"Be It Resolved"* there be inserted thereafter the words "that henceforth."

Dr. Gramling: I do not disagree with Dr. Ryan, but if any contract such as this is a misdemeanor I do not see why "henceforth" should be inserted. Why condone a contract made and in force that is unprofessional and unethical. If it is unprofessional and unethical in the past, it certainly is in the future. I am in favor of this resolution, which strikes at something you all know exists in the medical profession at the present time.

Are we to do in this body as does the statesman or diplomat who inserts language that can be misused? I feel this is a body that wants to say exactly what it means and what it professes to mean and do. Therefore, I think the language should be explicit and should state just what it wants and what it means. I do not see why in the State of Wisconsin, in this House of Delegates, there is any question of endorsing a principle that the American Medical Association has defended for years.

Dr. Sisk: I had several conferences last night, first with Dr. Ryan and then with certain members of my own group of delegates. I left the conference with Dr. Ryan impressed with the fact that it might be wise to soften the situation, much as I hate to hedge on a proposition. But I am not privileged, Dr. Ryan, to make the change myself. This amendment as you have introduced it may be put to a vote and I will vote my own sentiment. I agree with Dr Gramling that if we are condoning something, let us stop that sort of thing. If it is unethical, our county society can determine the merits of the proposition. We would like to look at some of these things in the future more than in the past,—we in Dane County and in some of the other counties. I am going to ask that the resolution be passed as introduced.

Speaker Gundersen: Is there any further discussion? Are you ready for the question? The question is on the amendment offered by Dr. Ryan. All in favor of the amendment will say "Aye"; opposed "No." The amendment is lost. The question now is on the original resolution and the motion to adopt such resolution. Is there any further discussion?

Dr. Jorgenson: I am further impressed regarding the administration of this, following the remarks of the gentleman of this side of the room. Having seventy-one different counties we have seventy-one different interpretations and ways to handle the situation. Could not the local county society be the fact-finding commission in the case and report its findings to a central committee of the State Society, so the State Society would have some uniformity of opinion and action governing this situation?

Secretary Crownhart: If I may answer Dr. Jorgenson's point, that is precisely provided for in the resolution. The county society will be the fact-finding body reporting to the Council and it will be the Council's determination that governs, which actually says whether the contract is or is not unethical. However, the county society will have jurisdiction to the extent of whether they refer the matter to the Council.

Dr. Jorgenson: In the last sentence it says "and be disciplined in such manner as may be determined by his county medical society."

Dr. Sisk: Mr. Speaker, I would like to make a change in the last three lines and I suppose it had better be introduced as an amendment. I would like to amend the resolution so that the last two lines would read as follows: That after the words "principles of medical ethics above quoted" it read *"and if found guilty as charged, be disciplined by expulsion from his county medical society."* That would eliminate the words "in such manner as may be determined."

Secretary Crownhart: The amendment as introduced by Dr. Sisk would change the last two lines of the resolution so that it would read, following the comma after the word "quoted," *"and if found guilty as charged be disciplined by expulsion from his county medical society."* Is that correct?

Dr. Sisk: That is correct. I understand the American Medical Association provides for expulsion for unprofessional conduct under this article. It has been brought to my attention that the penalty should be uniform throughout the State and this is an effort only at correction, not to change the intent of the resolution. The penalty should be placed there in so many words and not by implication.

. . . The amendment was seconded by Dr. Minahan, of Green Bay . . .

Speaker Gundersen: Is there discussion on the amendment? Are you ready for the question? All in favor of the amendment say "Aye"; opposed "No." I will ask for a division of the House. All those who are in favor will signify by standing (33 rose). Those opposed will please rise. (17 rose). The amendment is carried. The question now is on the original resolution as amended. All in favor of the resolution as amended will signify by saying "Aye"; opposed "No." The resolution as amended is carried.

Motion is now in order for adjournment of this session of the House of Delegates, after which we will reconvene.

Dr. Gramling: I move that this session now adjourn.

. . . The motion was seconded by Dr. Christofferson and carried and the metting adjourned at 9:30 a. m. . . .

(Adjournment)

THIRD SESSION

September 10, 1936

The third session of the House of Delegates of the State Medical Society of Wisconsin was called to order at 9:35 a. m., by the Speaker Dr. Gundersen.

Speaker Gundersen: The third session of the House of Delegates will please be in order. We will have the report of the Credentials Committee.

Dr. Petersen: The Committee on Credentials is pleased to report at this time a registration of fifty-one members of the House, including three councilors. No questions have been raised regarding the seating of delegates or alternates. Slips for that purpose have been distributed. I move the attendance record so compiled constitute the roll of this House of Delegates.

. . . The motion was seconded by Dr. Mauermann and carried . . .

Speaker Gundersen: Mr. Secretary, have you the report of the Committee on Nominations?

Secretary Crownhart: Mr. Speaker, the report of the Committee on Nominations may include more than one nominee for each office and does not preclude additional nominations from the floor.

The Report of the Committee on Nominations to the 1936 House of Delegates

Your Committee has the honor to present the following nominations to this House:

President-Elect—James C. Sargent, Milwaukee.

Speaker of the House of Delegates to succeed Gunnar Gundersen, of La Crosse—A. E. Rector, Appleton.

Vice-Speaker of the House of Delegates to succeed James C. Sargent, Milwaukee—Henry J. Gramling, Milwaukee.

Delegate to the A.M.A., to succeed J. Gurney Taylor, Milwaukee, for term ending September, 1938—J. Gurney Taylor, to succeed himself.

Delegate to the A.M.A., to succeed W. E. Bannen, La Crosse, for term ending September, 1938—Gunnar Gundersen, La Crosse.

Alternate Delegate to the A.M.A., to succeed Stanley J. Seeger for term ending September, 1938—Stanley J. Seeger to succeed himself.

Alternate Delegate to the A.M.A., to succeed Stephen E. Gavin, Fond du Lac, for term ending September, 1938—Charles W. Giesen, Superior.

Your Committee nominates as the place of meeting for 1937, Milwaukee.

Respectfully submitted by all delegate members of the Committee on Nominations except the member from the thirteenth district who was not present.

Speaker Gundersen: The first order of business is the election of the President-Elect, Dr. James C. Sargent, of Milwaukee, has been nominated. Are there further nominations?

Dr. Gramling: I move the nominations be closed and the Secretary be instructed to cast the unanimous ballot for Dr. James C. Sargent, of Milwaukee.

. . . The motion was seconded by Dr. McMahon and carried . . .

Speaker Gundersen: The Secretary will cast the ballot.

Secretary Crownhart: I take great pleasure, Mr. Speaker, in casting the ballot of this House for Dr. James C. Sargent, of Milwaukee, to fill the office of President-Elect.

Speaker Gundersen: I declare Dr. Sargent elected President-Elect. The next order of business is the election of a Speaker of the House of Delegates. Dr. Rector has been nominated. Are there further nominations?

Dr. Jorgenson: I move the nominations be closed and the Secretary cast the ballot of this House for Dr. A. E. Rector as Speaker of the House of Delegates.

. . . The motion was seconded by Dr. Minahan and carried . . .

Secretary Crownhart: I take pleasure, Mr. Speaker, in casting the vote of this House for Dr. A. E. Rector, of Appleton, as Speaker of the House of Delegates.

Speaker Gundersen: I declare Dr. Rector elected Speaker of the House of Delegates. The next order of business is the election of a Vice-Speaker of the House of Delegates. Dr. Gramling has been nominated. Are there further nominations?

Dr. Armstrong: I move that the nominations be closed and the Secretary be instructed to cast the ballot of this House of Delegates for Dr. Gramling.

. . . The motion was seconded by Dr. Pomainville and carried . . .

Secretary Crownhart: Mr. Speaker, I take pleasure in casting the ballot of this House for Dr. Henry J. Gramling, of Milwaukee, as Vice-Speaker.

Speaker Gundersen: I declare Dr. Henry J. Gramling elected Vice-Speaker of the House of Delegates.

At this point, I would like to appoint a committee to escort Dr. Sargent, President-Elect, to the rostrum immediately following this election. I shall appoint Dr. Gramling, of Milwaukee, Dr. Redelings, of Marinette, and Dr. Armstrong, of Prairie du Chien.

The next order of business is the election of a delegate to the American Medical Association to succeed Dr. J. Gurney Taylor, of Milwaukee, for the term ending September, 1938. The Nominating Committee has nominated Dr. J. Gurney Taylor to succeed himself. Are there further nominations?

Dr. Powers: Having originally proposed Dr. Taylor for that office, I now move the nominations be closed, the rules be suspended and the Secretary cast the ballot unanimously for Dr. Taylor.

. . . The motion was seconded by Dr. Smith, of Milwaukee, and carried . . .

Secretary Crownhart: Mr. Speaker, I take pleasure in casting the ballot of this House for Dr. Taylor as delegate to the American Medical Association.

Speaker Gundersen: I declare Dr. J. Gurney Taylor elected delegate to the American Medical Association. The next order of business is the presentation of our President-Elect. It gives me pleasure, indeed, to present to you Dr. James C. Sargent, of Milwaukee. (The delegates rose and applauded)

President-Elect Sargent: Mr. Speaker and Members of the House of Delegates: I have very little to say and only a moment to say it in because I am due to appear upon the general program in a short time. I wish to express my appreciation for the confidence reposed in me and the honor conferred upon me. I have full knowledge of the fine caliber of the men who have held this office in past years. During the last year or two I have had sufficient contact with our State Society to know something of the work and the responsibility attached to this office. I promise you I shall try to do my best to emulate the example of my predecessors. I thank you very much.

Speaker Gundersen: We will proceed to the election of a delegate to the American Medical Association to succeed Dr. W. E. Bannen, of La Crosse, for the term ending September, 1938. Since my name has been proposed, I shall ask Dr. Rector to take the chair. Before leaving, I wish to express my sincere appreciation for the cooperation I have received from this body during the last two years as Speaker of this House of Delegates.

Secretary Crownhart: The Secretary takes pleasure in presenting to the House its new Speaker. (Applause)

Speaker Rector: Dr. Gunnar Gundersen has been nominated as Delegate to the American Medical Association for the term ending September, 1938. Are there further nominations?

Dr. Schneiders (Madison): I move the nominations be closed and Dr. Gunnar Gundersen be elected unanimously,—that the Secretary cast the ballot.

. . . The motion was seconded by Doctors Powers and Christofferson and carried . . .

Secretary Crownhart: Mr. Speaker, I take pleasure in casting the ballot of this House of Delegates for Dr. Gunnar Gundersen as delegate to the American Medical Association.

Speaker Rector: I declare Dr. Gundersen elected delegate to the American Medical Association. The next order of business is the election of an Alternate Delegate to the American Medical Association to succeed Dr. Stanley J. Seeger for the term ending September, 1938. The Committee reports the name of Dr. Seeger to succeed himself. Are there further nominations?

Dr. Ohswaldt: I move the nominations be closed and the Secretary cast the ballot of this House for Dr. Seeger to succeed himself as Alternate Delegate to the American Medical Association.

. . . The motion was seconded by Dr. Peterson and carried . . .

Secretary Crownhart: Mr. Speaker, I take pleasure in casting the ballot of this House of Delegates for Dr. Stanley J. Seeger, of Milwaukee, as Alternate Delegate to the American Medical Association.

Speaker Rector: I declare Dr. Seeger elected Alternate Delegate to the American Medical Association. The next order of business is the election of an Alternate Delegate to the American Medical Association to succeed Dr. Stephen E. Gavin, of Fond du Lac. The Committee has named Dr. C. W. Giesen, of Superior.

Secretary Crownhart: The Secretary has to inform the Committee that Dr. Giesen of Superior is now an Alternate. There is no nomination before the House.

Speaker Rector: What is the pleasure of the House? Are there nominations from the floor?

Dr. Trowbridge (Viroqua): I nominate Dr. Armstrong, of Prairie du Chien.

Dr. Powers: I second the nomination.

Dr. Armstrong: Mr. Speaker, it overwhelms me to think you would confer that honor upon me, but there are many other good men here, and I wish you would allow me to decline. (Withdrawal with the consent of the nominees)

Dr. Ryan (Milwaukee): I present the name of Dr. Arveson, of Frederic, as Alternate Delegate to the American Medical Association.

Dr. Christofferson: I second the nomination.

Speaker Rector: Are there further nominations?

Dr. McMahon (Glenwood City): I move the nominations be closed and the Secretary cast the unanimous ballot of the House for Dr. Arveson.

. . . The motion was seconded by Dr. Armstrong and carried . . .

Secretary Crownhart: I take pleasure in casting the ballot of this House of Delegates for Dr. R. G. Arveson, of Frederic, as Alternate Delegate to the American Medical Association.

Speaker Rector: I declare Dr. Arveson elected. The next order of business is a place of meeting for the 1937 annual session. The Committee on Nominations has recommended the city of Milwaukee.

Secretary Crownhart: At this point, may the Secretary request the House to hear the delegate from Racine.

Dr. Keland (Racine): It gives me great pleasure to tender an invitation to the State Medical Society of Wisconsin to come to Racine for the 1937 meeting. The question which came up before the committee was the housing of the delegates and the members attending, that the facilities in Racine did not give sufficient rooms for those who attend, but in talking to the members of my Society they said they could arrange to have boats come into the har-

bor at Racine to take charge of the housing situation. That would give them a pleasure trip on the boat. We have had one experience with another group and that served very satisfactorily. So I repeat the invitation,—we would be happy to entertain the members of the State Medical Society at Racine.

Secretary Crownhart: Dr. Keland, do you wish to have Racine considered for the 1937 session or the 1938 session? Are you placing Racine in nomination at this time?

Dr. Keland: Mr. Speaker, I have spoken to the members of my Society and since the Nominating Committee has chosen Milwaukee, we will defer consideration of our invitation until selection of place for the 1938 meeting is made.

Secretary Crownhart: Then, Mr. Speaker, the Secretary, at the Milwaukee session in 1937, will automatically place before the Committee on Nominations the city of Racine for their consideration and for the consideration of the House. You have before you the recommendation of the Nominating Committee that the 1937 meeting be held in Milwaukee.

Dr. Schneiders (Madison): I move that the nominations be closed and Milwaukee be unanimously selected as the place of meeting for the 1937 session.

. . . The motion was seconded by Dr. Orchard and carried . . .

Secretary Crownhart: Mr. Speaker, the Secretary has just been informed that some member wishes to contact the Committee on Resolutions before this session adjourns. I have asked the Assistant Secretary to have the member come forward. While we are waiting, is there any new business?

New Business

Dr. Ferguson (Elroy): I have been asked by some of my colleagues to bring before this assembly a few of the conditions that we consider ills. During the time I have been here, I have heard not one word regarding state medicine. A few years ago, the specter of state medicine arose on the horizon. Today that specter has become a substantial body and is threatening this institution. I think it is a very wise thing to consider a few of the circumstances that might encourage state medicine. For instance, we will say that the State of Wisconsin might put out 400 new students from our various organizations, graduate them as doctors of medicine; whereas in the State there would exist only opportunity for perhaps 200, thereby putting aside 200 potential men who might consider certain offers that state medicine might make.

We have throughout the State, from one end to the other, industrial organizations in which nurses are maintained in the larger industrial centers. Almost all these nurses are practicing medicine. I have in my possession plenty of evidence to prove this assertion. If all those positions in this State were abolished tomorrow there would be enough positions for every man in this room. At the head of many county institutions there is a nurse, a part-time doctor. During the time the doctor is absent this nurse is practicing medicine.

We have had in our county a new schedule delivered to us. Unless we can have the complete backing of the State Medical Society, it is practically useless to fight it. The schedule, for example, includes the following: Office call fifty cents, plus medicine twenty-five cents; complete physical examination, including pulse, temperature, respiration, blood pressure, $1; day call, $1.50, plus twenty-five cents per mile one way; obstetrical case, $10, plus mileage one way, to include three or four prenatal calls; tonsillectomy, $10, with no allowance for hospitalization or anesthetics; major operation, $25, with absolutely no allowance for anything outside that. If the doctor makes a call at the house afterward, there is no allowance in any way. The fee allowed for minor surgery is $2.50, and so forth.

It seems there should be some consideration of conditions of that description, but the time is growing late. I could talk for hours and tell of the conditions that exist from one end of the State to the other.

Let us take, for instance, our General Hospital over here. We have a fine institution, a splendid institution, well-managed, well-equipped. But there are certain things about it that do not appeal to the average physician. For example, I had a case of cataract in a retired farmer. He had saved $65 for this operation. I did not see how he could go to the city for this operation, live there, and pay the other incidental bills with only $65. He wanted to know whether he could go to the state institution. I said he could go there for $5 a day. He went there, but was kept so long before anything was done that before they had finished with the work it cost him $85. He had to borrow $20 more. He came home, but it was necessary for him to return. He did not have the money so he applied to the county; he was allowed the extra money. When he had finished the entire bill was around $150 or $160.

I had another patient with a suspected brain tumor. I sent her to the institution with the diagnosis of possible brain tumor. The patient was a pauper, had no financial means whatever. At the end of about two months she returned. The judge informed me the bill was in the neighborhood of $200. The final diagnosis was probable brain tumor with the suggestion she be operated. Perhaps if any one of us were superintendent of that institution we would do the same thing. But it seems to be the policy that when you send a patient to that institution where he would probably have a diagnosis, he is kept from ten days to two weeks at perhaps $4.50 to $4.80 per day, while if he were sent to an ordinary hospital he would be returned in three or four days. It is easily seen there is no trouble at all in making up sufficient money to reimburse them very nicely, and any physician doing that work at home, if he could get that same amount of money on those cases

(which in the case I referred to was in the neighborhood of $200, and nothing but a diagnosis) could do pretty well in his own community. In case after case sent there, we find they are kept unusually long.

Those of us who have had a little experience in hospital management know that, for example, in a hospital having 100 beds, after they have reached a registration of about thirty or forty, additional admissions represent profit. If one can get almost any fee after that, one is making money.

There is no doubt but that the management of an institution of this size must make a certain return, but if those people are kept unduly long with an intent to secure an additional fee, that would be paid by a normal person in a normal community we might as well keep them home, and something should be done so that we do keep them at home.

One word further, there is a law in the Industrial Commission calling for a panel of three physicians. Unfortunately it does not say from where the members of that panel might come. We will say, for example, in Madison there is a manufacturing concern which likes only one physician in the town. They have the privilege of putting that one physician's name on the panel, and after that they may put on a physician from Oconomowoc, and one from Milwaukee. That has happened. I have been before the Commission on the subject and they say, "That is your fault. You should have that law amended so that the panel of those three physicians must come from your own town."

For example, in my town, I offended a party there by making him pay a bill. He immediately turned around and appointed one physician from my town, another from nine miles away, and another from eight miles away so as to put me out. It made no difference to me, but you see the potential rights that a firm can have to the detriment of your own community. That law should be repealed to cause the panel to be selected from one's own home town.

Speaker Rector: Is there any further new business to be presented at this time?

Secretary Crownhart: A member of the Auxiliary reports to the Secretary that because she arrived late she did not have an opportunity to see the Resolutions Committee. She reports that various organizations in this State are being asked to express their sentiment to the legislature that it is the thought of the organization that ragweed should be included as a noxious weed for eradication as are other noxious weeds. Do the views so expressed express the sentiment of the House of Delegates? We would have to have a motion.

Dr. Arveson: I so move.

. . . The motion was seconded by Dr. Neilson, of Milwaukee . . .

Dr. W. H. Costello (Randolph): I would like to have a little information as to who would do the eradicating. As I see it, ragweed is practically all over the State. If it is going to be another expense to eradicate it, I question the advisability.

Secretary Crownhart: Under the noxious weed law of the State, the Secretary recalls offhand that it provides at a stipulated time during the year that the town chairman, village president, or the mayor of the city shall cause to be published in the newspapers a list of the noxious weeds, warning the people that they themselves must cause their eradication, under certain penalty if they do not do so. It is not done, as I recall, at city expense. I trust any delegate will inform me to the contrary if I am wrong.

. . . The question was called for and the motion was carried . . .

Dr. Christofferson: May I ask the Doctor who just spoke where he got this fee schedule to which he referred. Is that some county organization?

Dr. Ferguson: Yes, sir, that originated from the supervisors of the county of Juneau. It was forced upon the Juneau County Medical Society. They have not objected except among themselves. They feel that unless they have assistance of some description from their parent organization, it is useless. Unless we can get our surrounding counties to cooperate with us, what can we do?

Dr. Christofferson: I would suggest they quit working.

Dr. Ferguson: So would I.

Dr. Ohswaldt (Oconto Falls): This fee schedule, as read by this gentleman, is absolutely correct. A relief unit came to us and told us what we had to charge and what we would get. At the present time, we are working at just a bare living, we are not getting anything at all. They have even reduced our mileage to twenty-five cents. That does not pay for the gasoline and oil regardless of the time. We are expected to do obstetrical cases for $12 to include prenatal and postnatal care. I think it is time that something was done either through the legislature or by drastic measures by the local society.

Dr. R. B. Rogers (Neenah): Since I have been a delegate to this body, for about eight sessions, from time to time, the so-called medical certificate for marriage has been discussed. Nothing has been done about it. As the examination is made now, it is utterly worthless. In the first place, the male is examined and not the female. In the second place, the examination is done by most of the men with whom we associate, including myself, hastily and does not guarantee the patient anything. It has gotten to the point where practically all my colleagues, and I myself give the certificate as a wedding gift. I would like to suggest that we do something about it and repeal this act as it stands if we are not going to enforce it. If it is to be retained, let us have the Wassermann test and so forth. Let us have an examination of both male and female or let us eliminate it entirely.

Dr. Henderson (Tomahawk): I think the gentlemen here are rather lucky in the fee schedule which has been referred to. In Lincoln County, they are getting six cents a mile one way.

Dr. Ferguson: Those are some of the things that go to make for state medicine. It is up to us to correct the situation, not someone else.

Dr. Parke (Viola): Dr. Ferguson has brought up something that is a real problem in the rural sections,—this fee schedule. We have it in Richland County. I am glad he has seen fit to bring it before you at this time. Some consideration, at least, should be given to this subject. When we met with Mr. Crawford, the relief worker, he had a man come in and tell us that was what they were putting through in every county in the State. There was only one man in our county society who had the courage to get up and say he would not have a thing to do with it. I have admired him ever since; I wish all could have done that.

Dr. F. D. Murphy (Milwaukee): I realize the problem brought up by Dr. Ferguson is of great importance to the men in the rural districts. I do not think we should regard lightly such thoughts as have been expressed here. However, since it is the final hour of the meeting here after two or three days of deliberation, it does not seem we could do justice to these problems where the politicians and doctors are rather at loggerheads in the State.

I suggest the Chair appoint some sort of committee to take this thing up with these men who have problems and let us get the details. I do not believe that a problem that includes such a large territory, so many people, the poor, the indigent, the county board, and the board of trustees, could be handled without having more definite information from the men involved. Therefore, I suggest the matter be studied and brought up next year for some action, if action is deemed necessary after examination.

Secretary Crownhart: In line with Dr. Murphy's suggestion, the Secretary thinks most of the problems discussed here would very properly come within the purview of the work of the Committee on Medical Economics. If any of the delegates who have information of this type will address a personal letter to the Secretary, it will be referred directly to the Committee on Medical Economics, which will hold a meeting in Madison within a month. Every letter will be answered as to committee action, and the men so notified told what is done. Some of them, undoubtedly, will wish the opportunity to appear and will have that opportunity afforded them. I am sure I speak the sentiment of the Committee in this respect.

Dr. Minahan: The Committee on Medical Economics has been in operation. Have we had any report from them at this session?

Secretary Crownhart: Dr. Minahan, The Committee on Medical Economics made perhaps the most comprehensive report ever made to this Society a year ago, in the whole field of the distribution of medical service. During the past year, under the direction of the Committee, we distributed all the literature for the high school debates. We also have been pursuing studies of a legal nature in the matter of credit and collection. That subject was before the House and you have asked for a special committee, so these studies that are just about completed will be turned over to that committee. I think they have been doing a tremendously important piece of work. It is not finished.

Speaker Rector: The Speaker has one suggestion to offer to this group on the complaint they have been making. In Outagamie County, there has been set up a Public Relations Committee and an Auditing Committee from the Medical Society. The Auditing Committee of the Medical Society absolutely determines the fees at the end of each month for services rendered the indigent. They have the complete cooperation of the municipal and county authorities. The profession is satisfied and the county officials are satisfied. I think there has been much stubbornness on the part of the medical profession; I think there has been stubbornness on the part of the county boards. It is time you get together and work together. These are stressing times and responsibility as to taxes and so forth goes to your county officers. They have a responsibility to their people. I think the profession must hedge a little in the courteous way, and I think it can be worked out satisfactorily in any county in the State.

Recently we went to our county board, in the light of past experience, and presented a suggestion for tuberculin testing of children. They heard us through and at the end of the session asked us to write our own resolution and let them sign it. They gave us $5,000 to start the work. The county board will do those things. Is there any further business to be transacted at this time?

Secretary Crownhart: Mr. Speaker, before the House adjourns, may I say for information of the House relative to the Industrial Commission in the type of case to which Dr. Ferguson refers, in which they went out of town to secure a physician for the panel when physicians were available within the town? I have had three such cases reported to me. In each case, after I reported, the Commission has ordered that the panel be chosen locally so long as the supply of physicians existed. I think that is their intent and if Dr. Ferguson will give me the name of the company, I shall be happy to take it up again; and if that does not work, to refer it to the Committee on Public Policy.

Dr. Ferguson: I took it up with the Commission and they said unfortunately the law was written that way and they had no jurisdiction. They said the law did not prevent any firm from selecting the other two physicians anywhere they saw fit.

Secretary Crownhart: Then, Dr. Ferguson, I shall see that this information reaches the Committee on Public Policy, which meets within a month to frame the legislative program.

Speaker Rector: If there is no further business, Mr. Secretary, we will adjourn this meeting.

Dr. Powers: I move we adjourn.

. . . The motion was seconded and carried and the meeting adjourned sine die at 10:00 a.m. . . .

(Adjournment)

Attendance House of Delegates, Madison, 1936

Society	Delegate	1	2	3
Ashland-B-I	R. O. Grigsby, Ashland	a	a	a
	C. W. Lockhart, Mellen*	x	x	x
Barron-W-S-B	A. S. White, Rice Lake	x	x	x
	H. H. Schlomovitz, Barron*	a	a	a
Brown-K-D	P. R. Minahan, Green Bay	x	x	x
	W. W. Kelly, Green Bay*	a	a	a
	O. A. Stiennon, Green Bay	x	x	x
	W. E. Leaper, Green Bay*	a	a	a
Calumet	J. W. Goggins, Chilton	a	a	a
	N. J. Knauf, Chilton*	a	a	a
Chippewa	W. H. Fortner, Bloomer	x	x	x
	A. W. Overgard, Stanley*	a	x	a
Clark	H. H. Christofferson, Colby	x	x	x
	M. C. Rosekrans, Neillsville*	a	a	a
Columbia	H. M. Caldwell, Columbus	x	x	a
	W. H. Costello, Randolph*	a	x	x
Crawford	C. A. Armstrong, Prairie du Chien	x	x	x
	E. T. Ackerman, Gays Mills*	x	a	a
Dane	H. E. Marsh, Madison	x	x	x
	W. T. Lindsay, Madison*	a	a	x
	E. F. Schneiders, Madison	x	x	x
	L. V. Sprague, Madison*	a	x	x
	J. Newton Sisk, Madison	x	x	x
	M. J. J. Colucey, Madison*	a	a	a
	L. W. Peterson, Sun Prairie	x	x	x
	Louis Fauerbach, Madison*	a	a	a
Dodge	C. M. O'Hora, Beaver Dam	x	x	x
Douglas	H. J. Orchard, Superior	x	x	x
	C. W. Giesen, Superior*	x	x	x
Eau Claire-D-P	J. C. Baird, Eau Claire	x	x	x
	Oscar Knutson, Osseo*	a	a	a
Fond du Lac	D. J. Twohig, Fond du Lac	x	x	a
	C. W. Leonard, Fond du Lac*	a	a	a
Forest	E. G. Ovitz, Laona	a	a	a
	G. W. Ison, Crandon*	x	x	x
Grant	E. C. Howell, Fennimore	x	x	x
	J. E. Donnell, Cuba City*	a	a	a
Green	J. F. Mauermann, Monroe	x	x	x
	W. G. Bear, Monroe*	a	a	a
Green Lake-W-A	A. J. Wiesender, Berlin	x	x	x
	G. E. Baldwin, Green Lake*	a	a	a
Iowa	S. R. Ridley, Mineral Point	x	x	a
	H. M. Walker, Dodgeville*	a	a	a
Jefferson	H. P. Bowen, Watertown	x	a	a
	W. S. Waite, Watertown*	a	a	a
Juneau	F. H. Ferguson, Elroy	x	x	x
	W. T. O'Brien, Mauston*	a	a	a
Kenosha	A. F. Ruffolo, Kenosha	x	x	x
	G. F. Adams, Kenosha*	a	a	a
La Crosse	N. P. Anderson, La Crosse	x	x	x
	Gunnar Gundersen, La Crosse*	x	x	x
Lafayette	W. B. Williams, Argyle	a	x	x
	Suzanne Orton, Darlington*	a	a	a
Langlade	J. C. Wright, Antigo	a	a	a(1)
	W. P. Curran, Antigo*	a	a	a
Lincoln	R. J. Henderson, Tomahawk	x	x	x
	F. C. Lane, Merrill*	a	a	a
Manitowoc	R. W. Hammond, Manitowoc	a	a	a
	A. P. Zlatnik, Two Rivers*	a	a	a
Marathon	S. M. B. Smith, Wausau	x	x	x
	E. E. Flemming, Wausau*	a	a	a
Marinette-F	H. L. Jorgenson, Marinette	a	x	x
	T. J. Redelings, Marinette*	a	x	x
Milwaukee	Jos. Lettenberger, Milwaukee	x	x	x
	F. E. Drew, Milwaukee*	x	x	x
	F. D. Murphy, Milwaukee	x	x	x
	W. V. Nelson, Milwaukee*	a	a	a
	J. C. Sargent, Milwaukee	x	x	x
	R. E. Fitzgerald, Milwaukee*	x	a	x
	H. W. Powers, Milwaukee	x	x	x
	H. C. Schumm, Milwaukee*	x	a	a
	H. J. Gramling, Milwaukee	x	x	x
	A. R. Langjahr, Milwaukee*	a	a	x
	G. W. Neilson, Milwaukee	x	x	x
	Edward Jackson, Milwaukee*	a	a	a
	Norbert Enzer, Milwaukee	x	a	a
	W. F. Grotjan, Milwaukee*	a	a	a
	L. W. Hipke, Milwaukee	x	x	x
	E. J. Carey, Milwaukee*	x	a	x
	R. P. Sproule, Milwaukee	x	x	x
	C. W. Eberbach, Milwaukee*	x	a	a
	H. E. Webb, Milwaukee	x	a	x
	S. M. Markson, Milwaukee*	a	a	a
	J. W. Smith, Milwaukee	x	x	x
	Irwin Schulz, Milwaukee*	x	x	a
	W. A. Ryan, Milwaukee	x	x	x
	D. D. Mehigan, Milwaukee*	a	a	a
	F. W. Mackoy, Milwaukee	x	x	x
	B. P. Churchill, Milwaukee*	a	a	a
Monroe	G. C. Devine, Ontario	x	x	x
	S. D. Beebe, Sparta*	x	a	a
Oconto	H. F. Ohswaldt, Oconto Falls	a	x	x
	J. F. Rose, Lena*	a	a	a
Oneida-Vilas	W. S. Bump, Rhinelander	x	x	x
	O. R. McMurry, Eagle River*	a	a	a

Society	Delegate	1	2	3
Outagamie	A. E. Rector, Appleton	x	x	x
	Albert Leigh, Kaukauna	a	a	a
Pierce–St. Croix	A. E. McMahon, Glenwood City	x	x	x
	O. H. Epley, New Richmond*	a	x	a
Polk	R. G. Arveson, Frederic	x	x	x
	A. N. Nelson, Clear Lake*	a	a	a
Portage	E. E. Kidder, Stevens Point	x	x	x
	H. P. Benn, Stevens Point*	a	x	a
Price–Taylor	J. D. Leahy, Park Falls	x	x	x
	L. E. Nystrum, Medford*	a	a	a
Racine	H. B. Keland, Racine	x	x	x
	T. C. Hemmingsen, Racine*	x	x	a
Richland	George Parke, Viola	x	x	x
	B. I. Pippin, Richland Center*	a	a	a
Rock	P. A. Fox, Beloit	a	a	a(2)
	W. J. Allen, Beloit*	x	x	a
Rusk	W. F. O'Connor, Ladysmith	a	a	a
	L. M. Lundmark, Ladysmith*	a	a	a
Sauk	E. D. Stanton, Reedsburg	a	a	a
	Leo A. Hudson, Sauk City*	x	x	x
Shawano	A. J. Gates, Tigerton	x	x	x
	C. E. Stubenvoll, Shawano*	a	a	a
Sheboygan	G. J. Hildebrand, Sheboygan	x	x	x
	O. T. Gunther, Sheboygan*	a	a	a
Trempealeau–J–B	J. P. Reinhardt, Fountain City	x	x	x
	R. L. MacCornack, Whitehall*	x	x	x
Vernon	W. M. Trowbridge, Viroqua	x	x	x
	R. S. Hirsch, Viroqua*	a	a	a
Walworth	D. H. Jeffers, Lake Geneva	x	x	a
	Walter Mauthe, Whitewater*	a	a	a
Washington–Ozaukee	J. G. Hoffmann, Hartford	a	x	x
	H. M. Lynch, West Bend*	x	x	a
Waukesha	H. A. Peters, Oconomowoc	x	x	x
	H. T. Barnes, Delafield*	a	a	a
Waupaca	A. M. Christofferson, Waupaca	x	x	x
	R. K. Irvine, Manawa*	a	a	a
Winnebago	R. B. Rogers, Neenah	x	x	x
	J. M. Conley, Oshkosh*	x	a	a
Wood	F. X. Pomainville, Wis. Rapids	x	x	x
	K. H. Doege, Marshfield*	x	a	a

x—Present.
a—Absent.
*—Alternate.
(1)—Ill.
(2)—Deceased.

MINUTES OF COUNCIL, LORAINE HOTEL, MADISON

September 8, 1936

1. Call to Order

The Council was called to order at 1:00 p.m., by Chairman Arthur W. Rogers, of Oconomowoc.

2. Roll Call

Roll call disclosed the following present: Councilors Rogers, Smith, Lambert, Gavin, Blumenthal, Heidner, Butler, Pope, Dean, Duer, Jegi, and Cunningham; President Carter and Treasurer Sleyster; Dr. C. A. Harper, State Health Officer; Dr. A. E. Rector, Chairman of the Committee on Medical Economics; Dr. James C. Sargent, Vice-Speaker; Dr. Gunnar Gundersen, Speaker; Dr. J. Newton Sisk, representing the Board of Trustees of the Dane County Medical Society; Assistant Secretary Larson, and Secretary Crownhart.

The Council also had as its guests Dr. A. W. Adson, President of the Minnesota State Medical Association, and Dr. E. A. Meyerding, Secretary of the Minnesota State Medical Association.

3. Death of Dr. C. M. Gleason

Upon official announcement of the death of Dr. C. M. Gleason, Councilor, by the Chairman, the members of the Council stood in recognition of his outstanding service.

4. New Forms of Practice

Dr. J. Newton Sisk, representing the Board of Trustees of the Dane County Medical Society, presented to the Council a proposed resolution concerning newer forms of practice. Following discussion it was suggested that the resolution be presented to the House of Delegates for consideration of the Committee on Resolutions.

5. Approval of Minutes

It was moved by Blumenthal–Gavin that the minutes of the special meeting of the Council held in Milwaukee on June 27, as published on page 664 of the August issue of the Wisconsin Medical Journal, be approved. Carried.

6. Contract Practice

The Secretary reviewed the facts surrounding a special invitation of the Council to a member to attend this meeting of the Council for discussion of contract practice in the care of the indigent.

7. Life Memberships

Upon recommendation of the component county medical societies concerned and upon certification of the secretary that the members concerned were eligible under the terms of the By-Laws, the Council took the following action with regard to life memberships:

(a) It was moved by Heidner–Jegi that life membership be granted to Dr. J. M. Dodd, Sr., of Ashland. Carried.

(b) It was moved by Blumenthal–Smith that life membership be granted to Dr. J. H. Hackett, of Milwaukee. Carried.

8. Appeal of Five Members Upon Expulsion in Milwaukee County

Upon this order of business being reached, Dr. James C. Sargent, Milwaukee, withdrew from the room. The Secretary noted the arrival of Councilor Johnson. Following discussion in which only Councilors present at the June meeting participated, it was moved by Butler–Smith that the following statement constitute the decision of the Council:

"In the Matter of
A. L. Curtin, M. D.
H. C. Dallwig, M. D.
J. E. Rueth, M. D.
Gerald A. Sullivan, M. D.
H. F. Wolters, M. D.
Appellants

"This matter involves appeals to this Council by the above-named members of the Medical Society of Milwaukee County and of the State Medical Society of Wisconsin from decisions of the Board of Directors of the Medical Society of Milwaukee County ordering the expulsion from membership in that society of each of the appellants.

"A hearing on these appeals was held by the Council on June 27, 1936. The appeal brought before this body the record of the proceedings before the Board of Directors of the Milwaukee Society, such record consisting of a stenotype transcript of the proceedings and testimony there taken, together with original exhibits. A true copy of the transcript was furnished each member of the Council. Appellants were represented by counsel, Gerald P. Hayes, Esq., of Milwaukee, who presented their cause by printed brief and oral argument.

"Appellants' contentions on appeal were based upon the record with one exception—that being to the effect that this body was disqualified as an appellate body by reason of the fact that the State Society retained counsel to render assistance to the Board of Directors of the Milwaukee Society. There is incorporated in this decision, by reference, the statement made by Mr. Crownhart, on June 27, 1936, in regard to this matter and in explanation of why counsel was retained. It is sufficient answer to appellants' contention to state that employment of counsel is in the routine duty of the Secretary, a duty concerning which the Council neither participates nor has knowledge. The Council, and each individual member, had in no manner participated in the proceedings before the Board of Directors. For such reasons, this body must deny the validity of appellants' contention in this respect.

"It is the judgment of this body that the record of proceedings and exhibits discloses facts sufficient to sustain the decision of the Board of Directors of the Medical Society of Milwaukee County in this matter. The record further discloses strict compliance with the procedure required.

"This Council therefore affirms the order expelling appellants from membership."

The roll was called and the following Councilors voted in the affirmative: Smith, Lambert, Gavin, Rogers, Heidner, Butler, Pope, Jegi, Cunningham, Johnson, and Blumenthal,—eleven. The following Councilors announced that they were not present when the appeal was heard and did not participate formally in the vote, but had their names been called they would have voted in the affirmative: Dean, Duer,—two. Opposed: None.

The Secretary was instructed to inform the appellants and their legal counsel at once.

9. Birthplace of Dr. John B. Murphy

(At this time Dr. James C. Sargent returned to the room) Dr. A. E. Rector, Appleton, discussed with the Council a suggested Society project to preserve the birthplace of Dr. John B. Murphy at Appleton. It was moved by Heidner–Lambert that the Chairman of the Council be empowered to appoint a committee of five to represent the Society but without appropriation. Carried.

It was moved by Lambert–Blumenthal that the Secretary advise the American College of Surgeons of the intended project to ascertain what support might be secured through that channel. Carried.

The Chairman of the Council announced that the appointment of the committee would be made at a later date.

10. National Safety Council

The Secretary presented to the Council the suggestion that the Society hold membership in the National Safety Council. After discussion it was moved by Cunningham–Jegi that the matter be laid on the table. Carried.

11. Resolution re Discount Companies and Collection Agencies

Following discussion it was moved by Pope–Butler that the amended resolution on this subject adopted at the June meeting of the Council be referred to the House of Delegates through the office of the Secretary at the first meeting of the House that evening for decision as to whether it should be adopted by the House or repealed. Carried.

12. Experiment in Milwaukee County

The Secretary read a brief report of the present status of an experiment in medical service within Milwaukee County as authorized by mail ballot of the Council in early spring. The report was filed.

13. Office Staff

The Secretary reported that it might be essential to add stenographic help in view of the work on the Governor's Committee and the impending legislative

session. It was moved by Duer–Johnson that authority therefor be granted. Carried.

14. Mail Inserts

The Assistant Secretary presented to the Council, in accordance with previous instructions, three samples of public health messages suitable for using as inserts in physicians' mail. The subject matter was discussed by practically all present, after which it was moved by Dean–Smith that the proposal be laid on the table. After subsequent discussion it was moved by Butler–Cunningham that the proposal be taken from the table and referred to the Committee on Health and Public Instruction with directions to report at the January meeting of the Council. Carried.

15. New Business

The Secretary reported that the member invited to the present meeting had not kept his appointment.

Councilor Duer reported on medical service in the city of Marinette.

The Council adjourned at 3:45 p.m. until noon of the following day.

MINUTES OF COUNCIL, LORAINE HOTEL, MADISON

September 9, 1936

The Council met for luncheon at 12:15 noon with the following present: Councilors Rogers, Smith, Lambert, Gavin, Heidner, Butler, Pope, Dean, Duer, Jegi, and Cunningham; absent: Lettenberger. Doctors Adson and Meyerding were again present as guests of the Council. Others present were Speaker Gundersen, Doctor Blumenthal, Assistant Secretary Larson, and Secretary Crownhart.

At 12:45 the Secretary presented Dr. W. C. Woodward, Director of the Bureau of Legal Medicine and Legislation, of the American Medical Association. During the ensuing two hours the Secretary and Doctor Woodward presented discussion relative to trends in medical practice in which discussion all present participated.

The Council adjourned at 2:45 p.m. at the call of the Chairman.

J. G. Crownhart,
Secretary.

Approved:
A. W. Rogers, M. D.,
Chairman of Council.

Officers and Committees, 1937

President
Stephen E. Gavin, Fond du Lac

President-Elect
James C. Sargent, Milwaukee

Secretary
Mr. J. G. Crownhart, Madison

Assistant Secretary
Mr. George B. Larson, Madison

Treasurer
Rock Sleyster, Wauwatosa

Speaker, House of Delegates
A. E. Rector, Appleton

Vice-Speaker
Henry J. Gramling, Milwaukee

Councilors

First: Dodge, Jefferson and Waukesha County Societies. A. W. Rogers, Oconomowoc, 1939.

Second: Kenosha, Racine and Walworth County Societies. Frank W. Pope, Racine, 1939.

Third: Dane, Columbia–Marquette–Adams, Green, Rock and Sauk County Societies. Joseph Dean, Madison, 1937.

Fourth: Crawford, Grant, Iowa, Lafayette and Richland County Societies. W. Cunningham, Platteville, 1937.

Fifth: Calumet, Manitowoc, Sheboygan and Washington–Ozaukee County Societies. A. H. Heidner, West Bend, 1937.

Sixth: Brown–Kewaunee–Door, Fond du Lac, Outagamie and Winnebago County Societies. S. E. Gavin, Fond du Lac, 1937.

Seventh: Juneau, La Crosse, Monroe, Trempealeau–Jackson–Buffalo and Vernon County Societies. H. A. Jegi, Galesville, 1938.

Eighth: Marinette–Florence, Oconto and Shawano County Societies. G. R. Duer, Marinette, 1938.

Ninth: Clark, Green Lake – Waushara, Lincoln, Marathon, Portage, Waupaca and Wood County Societies. Joseph F. Smith, Wausau, 1938.

Tenth: Barron–Washburn–Sawyer–Burnett, Chippewa, Eau Claire–Dunn–Pepin, Pierce–St. Croix, Polk and Rusk County Societies. F. E. Butler, Menomonie, 1938.

Eleventh: Ashland–Bayfield–Iron and Douglas County Societies. F. G. Johnson, Iron River, 1939.

Twelfth: The Medical Society of Milwaukee County. Joseph Lettenberger, Milwaukee, 1939.

Thirteenth: Forest, Langlade, Oneida–Vilas and Price–Taylor County Societies. J. W. Lambert, Antigo, 1938.

Section on Radiology:
H. W. Hefke, Milwaukee, chairman
R. F. Wilson, Beloit, secretary

Section on Eye, Ear, Nose, and Throat:
E. G. Nadeau, Green Bay, chairman
L. A. Copps, Marshfield, vice-chairman
John B. Hitz, Milwaukee, secretary-treasurer

STANDING COMMITTEES

The Committee on Public Policy:
S. E. Gavin, Fond du Lac, 1938, chairman
R. H. Jackson, Madison, 1937
Carl W. Eberbach, Milwaukee, 1939

The Editorial Board:
F. Gregory Connell, Oshkosh, 1937, chairman
Stanley J. Seeger, Milwaukee, 1938
George H. Ewell, Madison, 1939

The Committee on Medical Defense:
A. J. Patek, Milwaukee, 1939, chairman
E. G. Ovitz, Laona, 1938
H. P. Bowen, Watertown, 1937

The Committee on Medical Education and Hospitals:
Francis D. Murphy, Milwaukee, 1939, chairman
W. S. Middleton, Madison, 1938
J. W. Prentice, Ashland, 1937

The Committee on Medical Economics:
A. E. McMahon, Glenwood City, 1939, chairman
A. E. Rector, Appleton, 1938
A. J. McCarey, Green Bay, 1937

The Committee on Health and Public Instruction:
E. E. Kidder, Stevens Point, 1939, chairman
Wenzel Wochos, Kewaunee, 1938
C. H. Christiansen, Superior, 1937

The Committee on Necrology:
Councilors and Secretary

The Cancer Committee:
W. D. Stovall, Madison, 1937, chairman
H. T. Barnes, Delafield, 1939
D. J. Twohig, Fond du Lac, 1939
E. E. Evenson, Wittenberg, 1939
C. W. Giesen, Superior, 1939
D. L. Dawson, Rice Lake, 1938
R. L. MacCornack, Whitehall, 1938
C. G. Richards, Kenosha, 1938
Gideon Benson, Richland Center, 1938
G. E. Moore, Antigo, 1938
F. Eigenberger, Sheboygan, 1937
Paul Doege, Marshfield, 1937
F. B. McMahon, Milwaukee, 1937

Council on Scientific Work:
W. S. Middleton, Madison, 1939, chairman
James A. Evans, La Crosse, 1940
Eben J. Carey, Milwaukee, 1941
H. A. Sincock, Superior, 1938
George W. Krahn, Oconto Falls, 1937

The Committee on Coordination of Medical Services:
Joseph F. Smith, Wausau, 1938, chairman
F. E. Butler, Menomonie, 1937
S. E. Gavin, Fond du Lac, 1936
President
Secretary, ex officio
University of Wisconsin Medical School
Wisconsin General Hospital

SPECIAL COMMITTEES FOR 1937

The Committee on Medical Care for Veterans:
Otho A. Fiedler, Sheboygan, chairman
R. B. Rogers, Neenah
H. A. Keenan, Stoughton

The Committee on Medical History:
F. Gregory Connell, Oshkosh, chairman (power to appoint associates)

The Committee on Commitment of the Insane:
(Appointed to end of 1937 legislative session)
H. W. Powers, Milwaukee
W. T. Kradwell, Wauwatosa
R. E. Mitchell, Eau Claire

The Committee on Mental Hygiene and Institutional Care:
A. W. Bryan, Madison, chairman
J. M. Conley, Oshkosh
J. L. Garvey, Milwaukee

The Committee on Collections and Credits:
Dr. C. D. Neidhold, Appleton, chairman
Dr. G. A. Eck, Lake Mills
Dr. T. Charles Hemmingsen, Racine
Dr. H. M. Caldwell, Columbus
Dr. Rush Godfrey, Lancaster
Dr. A. C. Radloff, Plymouth
Dr. Robert Krohn, Black River Falls
Dr. R. C. Cantwell, Shawano
Dr. Fred A. Marrs, Stevens Point
Dr. George Beebe, Eau Claire
Dr. J. W. McGill, Superior
Dr. Robert Fitzgerald, Milwaukee
Dr. E. G. Ovitz, Laona
Ex officio members: President, President-Elect, Speaker, and Secretary
(Appointed by Speaker)

COMMITTEES OF COUNCIL

The Executive Committee of the Council:
President
Chairman of Council
Treasurer
Secretary
J. W. Lambert, Antigo
A. H. Heidner, West Bend

The Advisory Committee to the Woman's Auxiliary:
F. W. Pope, Racine, 1938
A. W. Rogers, Oconomowoc, 1937
Rock Sleyster, Wauwatosa, 1936
President and Secretary, ex officio

The Auditing Committee:
F. W. Pope, Racine
J. F. Smith, Wausau
G. R. Duer, Marinette

The Advisory Committee on Care of Crippled Children:
J. W. Powers, Milwaukee, chairman
A. T. Nadeau, Marinette

C. M. Kurtz, Madison
H. Kent Tenney, Madison
Secretary, ex officio

The Advisory Committee on Cardiac Conditions in Crippled Children:

John Huston, Milwaukee, chairman
M. F. Rogers, Milwaukee
L. M. Warfield, Milwaukee
C. M. Kurtz, Madison
Secretary, ex officio

The Committee on Goiter:

Arnold Jackson, Madison, chairman
M. O. Boudry, Waupaca
F. D. Murphy, Milwaukee
C. A. Harper, Madison

The Advisory Committee to Wisconsin Interscholastic Athletic Association:

O. R. Lillie, Milwaukee
Roland S. Cron, Milwaukee
R. E. Burns, Madison

Members State Medical Society of Wisconsin*

Abbotsford:
Shields, G. G.

Ableman:
McGonigle, B. E.

Abrams:
Fauids, R. C.

Adams:
Shapiro, Harry

Adell:
Bemis, Ira M.
Nayien, F. J.

Albany:
Blum, O. S.
Weissmiller, L. L.

Algoma:
Foshion, H. V.
Witcpalek, W. W.

Allenton:
Fisher, R. S.

Alma:
Larson, J. A.

Almena:
Arneson, Thomas

Almond:
Meyer, M. W.

Amery:
Cornwall, W. B.
Waterman, I. L.

Amherst:
Schroeder, C. F.

Antigo:
Bloor, E. G.
Curran, W. P.
Donohue, M. J.
Dorzeski, E. F.
Flatley, M. A.
Lambert, J. W.
McKenna, E. A.
Moore, G. E.
Portman, R. J.
Steffen, L. A.
Wright, J. C.
Zellmer, C. E.

Appleton:
Benton, J. L.
Bolton, E. L.
Brooks, E. H.
Carlson, G. W.
Dehne, W. O.
Frawley, W. J.
Gallaher, D. M.
Gloss, A. J.
Harrington, Wm. J.
Hegner, G. T.
Huberty, F. J.
Konz, S. A.
Krueger, E. N.
Landis, R. V.
MacLaren, J. B.
Marshall, V. F.
McBain, L. B.
McCarty, R. T.
McGrath, E. F.
Mielke, E. F.
Mills, N. P.
Neidhold, C. D.
Pardee, C. A.
Rector, A. E.
Reeve, J. S.
Ritchie, G. A.
Ryan, C. E.
Swanton, M. E.
Troxel, J. C.

Arcadia:
Comstock, E.
Palmer, J. A.
Skroch, J. P.
Weber, F. T.

Argyle:
Eurit, D. H.
Williams, W. B.

Arpin:
Stiles, W. W.

Ashland:
Dodd, J. M., Jr.
Dodd, J. M., Sr.
Grand, C. A.
Grigsby, R. O.
Hosmer, M. S.
Lowe, J. W.
Prentice, J. W.
Smiles, C. J.
Tucker, W. J.
Weeks, F. D.
Young, M. L.

Athens:
Bachhuber, H. M.
Frick, Lewis

Augusta:
Prill, H. F.

Baldwin:
Kunny, B.
Swenson, G. B.

Balsam Lake:
Meilicke, W. A.

Bangor:
Ruppenthal, K. P.
Ward, M. W.

Baraboo:
Cahoon, Roger
Edwards, A. C.
Farnsworth, A. L.
Fenton, R. L.
Huth, M. F.
Irwin, H. J.
Kelly, D. M.
Moon, J. F.
Tryon, F. E.
Vander Kamp, H.
Winslow, F. R.

Barron:
Coleman, H. M.
Post, C. C.
Ruethin, K. A.
Schiomovitz, H. H.
Smith, R. C.

Barton:
Driessel, S. J.

Bayfield:
Robertson, M. J.
Shumate, J. K.

Bear Creek:
Morneau, L. F.

Beaver Dam:
Corso, Xavier
Hammond, A. W.
Hough, A. G.
Hoyer, A. A.
Hoyer, G. H.
O'Hora, C. M.
Roberts, R. R.
Rosenheimer, A. M.
Schoen, R. E.
Temkin, M. M.
Webb, E. P.
Welsch, J. M.

Belgium:
Huth, E. P.

Belleville:
Donlin, W. F.

Belmont:
Hubenthal, J. C.

Beloit:
Allen, J. P.
Allen, W. J.
Baldwin, R. M.
Brinckerhoff, F. E.
Brown, E. B.
Crockett, W. W.
Crone, V. D.
Flarity, T. H.
Fosse, B. O.
Friend, L. J.
Friske, O. W.
John, G. W.
Heim, H. M.
Kasten, H. E.
Keithley, J. W.
Kishpaugh, H. W.
Leeson, F. W.
Lemmel, J. T.
Ottow, A. F.
Raube, H. A.
Shearer, H. A.
Shinnick, T. F.
Smith, C. E.
Thayer, F. A.
Thayer, R. A.
Vivian, R. S.
Wilson, R. F.

Benton:
Bent, X. Pearle
Leitzell, P. W.

Berlin:
Koch, H. C.
Scott, B. E.
Seward, L. J.
Wiesender, A. J.

Big Bend:
Boldt, R. E.

Birchwood:
Ainsworth, H. H.

Black Creek:
Laird, J. J.

Black River Falls:
Krohn, Irwin
Krohn, Robert
Mannis, Harry

Blackwell:
Gonzalez, Luis

Blair:
Richards, R. R.

Blanchardville:
Hicks, E. V.
Unterholzner, L. J.

Bloomer:
Clauson, C. T.
Fortner, W. H.
Hudek, D. F.
Trankle, H. M.

Bloomington:
Baldwin, F. H.
Glasier, M. B.
McLaughlin, H. J.

Blue Mounds
Bancroft, H. V.

Blue River:
Randall, M. W.

Bonduel:
Terlinden, J. H.

Boscobel:
Freymiller, E. F.
Hayman, C. S.
Spiegelberg, E. H.
Tuffley, F. S.

Brandon:
Hull, H. H.

Briggsville:
Boots, F. W.

Brillion:
McComb, I. N.
Wagner, A. J.
Zietlow, F. G.

Brodhead:
Mitchell, E. J.
Ross, M. E.
Taylor, A. R.

Brownsville:
Raymond, R. G.
Ries, M. F.

Bruce:
Whalen, M. L.

Burlington:
Bennett, J. F.
Mastalir, L. O.
Prouty, W. A.

Cable:
Clark, Kate Kelsey

Cadott:
Zenner, C. E.

Cambria:
Ronneburger, E. O.
Williams, W. E.

Cambridge:
Amundson, K. K.
Bilstad, G. E.

Cameron:
Cronk, C. F.
Hoffman, E. F.

Campbellsport:
Guenther, O. F.
Hoffmann, L. A.

Camp Douglas:
Cron, C. O.

Casco:
Fencil, Y. J.
Kerscher, E. J.

Cashton:
Cremer, C. H.
Mauel, N. M.

Cassville:
Blackbourn, F. E.

Cato:
Kelley, J. M.

Cazenovia:
Hanko, J. E.

* Complete up to December 1, 1936.

Cedarburg:
Blanchard, P. B.
Hurth, O. J.
Katz, H. M.

Cedar Grove:
Van Altena, L. A.
Voskuil, A.

Centuria:
Noyes, G. B.

Chaseburg:
Remer, W. H.

Chetek:
Adams, R. W.
Hume, A. T.

Chilton:
Goggins, J. W.
Knauf, N. J.
Minahan, J. J.

Chippewa Falls:
Beier, A. L.
Field, Merton
Hatleberg, C. B.
Henske, W. C.
Kelly, J. A.
McCarty, E. O.
McHugh, F. T.
McRae, J. D.
Rodgers, R. S.
Sazama, F. B.
Schwartz, R.
Somers, A. J.
Williams, S. E.

Clear Lake:
Campbell, L. A.
Nelson, A. N.

Cleveland:
Reinert, E. N.

Clinton:
Parker, A. S.
Thomas, W. O.

Clintonville:
Finney, W. H.
Miller, E. A.
Murphy, J. H.

Cochrane:
Meili, Emmett A.

Colby:
Christofferson, H. H.
Schemmer, A. L.

Coleman:
Graner, L. H.

Colfax:
Cooper, C. A.
Felland, O. M.

Columbus:
Caldwell, H. M.
Mudroch, J. A.
Poser, E. M.
Schmeling, A. F.
Watson, E. L.

Coon Valley:
Solberg, A. A.

Cornell:
Foster, J. H. A.

Cottage Grove:
Jones, Griffith

Crandon:
Ison, G. W.

Cross Plains:
Froggatt, W. E. L.

Cuba City:
Bair, F. M.
Donnell, J. E.

Cudahy:
Ackerman, J. S.
Fine, J. M.
Krueger, B.
Lawler, E. M.
Partridge, C. D.
Smith, H. S.

Cumberland:
Grinde, G. A.
Lund, S. O.
Thompson, R. C.

Dale:
Archer, W. E.

Dallas:
Simonson, S. W.

Darlington:
McConnell, E. D.
Orton, Susanne
Quinn, R. B.

De Forest:
Bertrand, J. H.

Delafield:
Barnes, H. T.

Delavan:
Crowe, N. F.
Doughty, J. W.
Jacobson, T. L.
Kenney, H. J.
Klinger, George
Wright, C. A.

Denmark:
Hager, F. J.
Vosburgh, W. H.

De Pere:
Kersten, N. M.

Dodgeville:
Hagerup, T. A.
Hamilton, W. P.
Metcalf, C. J.
Morton, H. H.
Reese, William
Walker, H. M.

Dorchester:
Foley, F. P.

Dousman:
Schneider, Hans

Durand:
Buckley, R. A.
Schulberg, P. A.

Eagle River:
Flannery, J. V.
McMurry, O. R.
Oldfield, R. A. A.

East Troy:
Meany, S. G.

Eau Claire:
Anderson, F. G.
Baird, J. C.
Beebe, G. W.
Cook, F. S.
Derge, H. F.
Falstad, C. H.
Flynn, L. H.
Fuson, H. S.
Haag, A. F.
Hayes, E. P.
Henke, S. L.
Hoyme, G.
Kinsman, F. C.
Kohl, Martha
LaBreck, F. A.
Manz, W. R.
Mason, E. L.
Midelfart, H. C. U.
Mitchell, R. E.
Paulson, W. O.
Payne, A. L.
Scullard, G.
Seemann, W. O.
Spelbring, P. G.
Stang, H. M.
Stoland, I.
Tanner, J. W.
Tupper, E. E.
Werner, Nels
Werner, R. F.
Ziegler, J. E. B.

Eden:
Hardgrove, J. H.

Edgar:
Schulz, H. A.

Edgerton:
Cleary, B. L.
Morrison, W. W.
Shearer, A. T.
Shearer, F. E.
Sumner, W. C.

Elcho:
Dailey, P. J.

Eldorado:
Jackson, F. A.

Elkhart Lake:
Rothenmaier, G. L.

Elkhorn:
Herzog, J. V.
Ridgway, E. T.
Sorenson, E. D.

Ellsworth:
Addington, E. A.
Nylander, E. G.

Elmwood:
Breed, A. L.

Elroy:
Ferguson, F. H.
Vogel, C. A.
Vogel, C. C.

Ettrick:
Rogne, C. O.

Evansville:
Guilfoyle, J. P.
Gray, Rodney J.
Smith, C. M.

Fairchild:
Gibson, H. V.

Fall Creek:
Zboralski, F. F.

Fall River:
Hunt, F. O.

Fennimore:
Bailey, M. A.
Howell, E. C.
Marsden, T. H.

Fifield:
Kuehl, F. O.

Fond du Lac:
Alexander, W. S.
Borsack, K. K.
Boyd, G. T.
Devine, H. A.
Devine, J. C.
Finn, W. C.
Florin, A. C.
Folsom, W. H.
Gardner, L.
Gavin, S. E.
Helz, J. W.
Hutter, A. M.
Keenan, L. J.
Layton, O. M.
Leonard, C. W.
McCabe, P. G.
Meiklejohn, D. V.
Mills, R. G.
Pawsat, E. H.
Pullen, A. J.
Rehorst, J. J.
Sharpe, H. R.
Sharpe, J. J.
Simon, L. J.
Smith, E. V.
Smith, E. V., Jr.
Twohig, D. J.
Twohig, H. E.
Twohig, J. E.
Waffle, R. L.
Waldschmidt, W. J.
Walters, D. N.
Werner, H. C.
Wier, J. S.
Wiley, F. S.
Wojta, W. C.
Yockey, J. C.

Footville:
Harvey, J. R.

Forest Junction:
Wollersheim, P. J.

Forestville:
Hirschboeck, J. G.

Fort Atkinson:
Caswell, H. O.
Chase, Estelle S.
Franzel, J. E.
Gruesen, F. A.
Hanson, O. H.
Morris, R. C.
Venning, J. R.
Young, Will

Fountain City:
Reinhardt, J. P.
Skemp, F. C.

Fox Lake:
Elliott, E. S.

Frederic:
Andrews, W. C.
Arveson, R. G.
Diamond, J. A.

Fredonia:
Coerper, E. E.

Friendship:
Harris, A. J.
Treadwell, G. F.

Galesville:
Alvarez, R. L.
Jegi, H. A.
Younker, F. T.

Gays Mills:
Ackerman, E. T.
Lund, H. C.

Genoa City:
Bill, B. J.

Germantown:
Dehmel, R. W.

Gillett:
Baldwin, L. H.
Berg, W. R.

Gilman:
Hable, A. P.

Glenbeulah:
Hansen, John

Glenwood City:
McCusker, C. F.
McMahon, A. E.

Goodman:
Kingsbury, C. H.

Grafton:
Balkwill, C. A.

Granton:
Overman, M. V.
Rath, R. R.
Wink, R. H.

Gratiot:
Banfield, C. P.

Green Bay:
Bartran, W. H.
Brusky, A. H.
Buchanan, R. C.
Burdon, T. S.
Burns, Robert
Carter, R. M.
Chloupek, C. J.
Colignon, J. C.
Comee, W. C.
Cowles, R. L.
Crikelair, F. L.
Decker, W. J.
DelMarcelle, C. C.
Denys, G. F.
Dockry, P. F.
Ford, W. W.
Fuller, M. H.
Gosin, D. F.
Gosin, F. J.
Hagerty, W. T.
Halloin, J. E.
Hendrickson, H.
Icks, Karl
Jordan, E. M.
Kelly, W. W.
Killins, W. A.
Kispert, R. W.
Knox, E. S.
Leaper, W. E.
Levitas, I. E.
McCarey, A. J.
McNevins, E. S.
Milson, Lewis
Minahan, P. R.
Mueller, W. E.
Nadeau, E. G.
Oliver, T. J.
Olmsted, A. O.
Quigley, L. D.
Robb, J. J.
Senn, George
Smits, R. H.
Stauff, G. R.
Stiennon, O. A.
Tippet, W. P.
Troup, R. L.
Williamson, C. S.
Wolter, H. A.

Green Lake:
Baldwin, G. E.

Greenleaf:
Titel, E. A.

Greenwood:
Olson, Wm. A.

Gresham:
Litzen, F. L.

Hales Corners:
Johnson, A. W.
Pierce, D. F.
Wolf, R. C.

Hammond:
Olson, C. A.

Hancock:
Wild, J. P.

Hartford:
Hoffmann, J. G.
Lehmann, F. W.
Loughlin, T. F.
Monroe, M. E.
Sachse, F. W.

Hartland:
Bergwall, R. P.
Grover, F. L.
Nixon, H. G. B.

Hawthorne:
Lookanoff, V. A.

Hayward:
Callaghan, D. H.
Dufour, E. H.
Krueger, E. R.
Rideout, M. E.

Hazel Green:
Fillbach, H. E.

Highland:
Erickson, M. T.

Hilbert:
Winkler, R. J.

Hillsboro:
MacKechnie, R. S.
Schneeberger, E. J.

Hixton:
Petzke, E. A.

Hollandale:
Marshall, S. B.

Holmen:
Hanson, L. E.

Horicon:
Karsten, J. H.

Hortonville:
Towne, W. H.

Hudson:
Livingstone, J. W.
Newton, J. E.

Hustisford:
Panetti, P. A.

Independence:
Peterson, C. F.
Peterson, D. R.

Iola:
Wilker, W. F.

Iron River:
Johnson, F. G.

Jackson:
Froede, H. E.

Janesville:
Bartels, G. W.
Baumgartner, M. M.
Binnewies, F. C.
Clark, W. T.
Cunningham, M. A.
Danforth, H. C.
Farnsworth, F. B.
Farnsworth, R. W.
Fifield, G. W.
Frechette, F. M.
Freitag, S. A.
Gilbertsen, C. R.
Hartman, E. C.
Hartman, R. C.
Johnson, W. L.
Klein, Theodore
Koch, V. W.
Kuegle, F. H.
Lapp, H. D.
Metcalf, G. S.
Munn, W. A.
Nuzum, T. O.
Nuzum, T. W.
Overton, O. V.
Pember, A. H.
Snodgrass, T. J.
Stevens, J. V.
Sutherland, F. E.
VanKirk, F. W.
Waufle, G. C.
Welch, F. B.

Jefferson:
Brewer, J. C.
Busse, A. A.
Garding, C. J.

Johnson Creek:
Wendt, F. A.

Juda:
Gifford, H. B.

Junction City:
Reis, G. W.

Juneau:
Heath, H. J.
Hebenstreit, A. J.

Kaukauna:
Bachhuber, A. E. Jr.
Boyd, C. D.
Boyd, G. L.
Flanagan, G. J.
Hogan, John
Leigh, Albert

Kenosha:
Adams, G. F.
Andre, E. F.
Ashley, T. W.
Bennett, W. H.
Binnie, Helen A.
Bowing, I. E.
Cleary, J. H.
DeFazio, S. F.
Gephart, C. H.
Good, Palmer W.
Graves, J. P.
Hastings, J. F.
Hill, B. S.
Lipman, W. H.
Lokvam, L. H.
Mayfield, A. L.
McCarthy, G. W.
Murphy, S. W.
Pechous, C. E.
Pifer, P. E.
Randall, A. J.
Rauch, A. M.
Richards, C. G.
Ripley, H. M.
Rose, H. L.
Ruffolo, A. F.
Schlapik, A.
Schulte, G. C.
Schwartz, G. J.
Schwartz, H. L.
Sokow, Theodore
Stewart, W. C.
Swarthout, E. F.
Thompson, G. E.
Ulrich, C. F.
Windesheim, G.

Kewaskum:
Edwards, R. G.
Hausmann, N. E.

Kewaunee:
Dana, D. B.
Dockry, L. E.
Wochos, F. J.
Wochos, W. M.

Kiel:
Knauf, F. P.
Nauth, D. F.

Kimberly:
Maes, C. G.

Kohler:
Cottingham, M. D.

La Crosse:
Anderson, N. P.
Bannen, W. E.
Callahan, J. L.
Carlsson, E. S.
Daley, D. M.
Douglas, F. A.
Eagan, R. L.
Egan, G. J.
Eidam, L. W.
Evans, J. A.
Flynn, R. E.
Gallagher, E. E.
Garrett-Bangsberg, S.
Gatterdam, P. C.
Gray, R. H.
Gundersen, A.
Gundersen, Alf
Gundersen, G.
Gundersen, S. B.
Harman, J. C.
Henke, W. A.
Heraty, J. E.
Houck, Mary Piper
Jones, W. J.
Lueck, G. W.
Malin, G. W.
Mast, B. W.
McGarty, M. A.
McLoone J. E.
Moran, C. J.
Reay, G. R.
Rosholt, J. A.
Roth, J. A.
Simones, V. L.
Sivertson, M.
Skemp, A. A.
Skemp, G. E.
Smedal, E. A.
Smith, D. S.
Swarthout, Edyth C.
Townsend, E. H., Jr.
Thurston, E. W.
Wolf, H. E.

Ladysmith:
Lundmark, L. M.
O'Connor, W. F.
Smith, Woodruff

Lake Geneva:
Donath, L. H.
Halsey, R. C.
Hudson, E. D.
Jeffers, Dean
MacDonald, W. H.
Wheeler, Theodora

Lake Mills:
Eck, G. E.
Engsberg, W. A.
Leicht, Phillip
Peterson, M. G.
Schoenecker, E. A.

Lancaster:
Doolittle, S. W.
Fowler, J. H.
Glynn, J. D.
Godfrey, R. C.
Houghton, E. M.

Laona:
Beech, R. H.
Ovitz, E. G.

Larsen:
Henrichsen, J. A.

LaValle:
Booher, J. A.

Lena:
Rose, J. F.

Little Chute:
Curtin, D. W.
Doyle, J. H.

Lodi:
Irwin, G. H.

Loganville:
Jewell, E. L.

Lomira:
Fuller, J. D.

Lone Rock:
Newlove, F. E.

Loyal:
Ingersoll, B. P.

Luck:
Ries, T. O.

Luxemburg:
Jandrain, R. R.

Madison:
Aageson, C. W.
Atwood, David
Bell, Peter
Bentley, J. E.
Bleckwenn, W. J.
Boner, A. J.
Bowman, F. F.
Boyce, S. R.
Briggs, S. J.
Brindley, B. I.
Britton, D. M.
Brown, E. J.
Bryan, A. W.
Buerki, R. C.
Bunting, C. H.
Burke, C. F.
Burke, Myra
Burns, R. E.
Caldwell, Ruth
Calvert, Charlotte
Campbell, R. E.
Carns, Marie L.
Carter, H. M.
Chorlog, J. I.
Chorlog, J. K.
Cline, Frances A.
Cole, L. R.
Coluccy, M. J. J.
Cooksey, R. T.
Davee, Chalmer
Davis, F. A.
Dean, F. K.
Dean, J. C.
Dean, J. P.
Dean, Joseph
Dimond, W. B.
Duehr, P. A.
Ellis, I. G.
Elsom, J. C.
Evans, J. S.
Ewell, G. H.
Fauerbach, L.
Gale, J. W.
Ganser, W. J.
Geist, F. D.
Gonce, J. E., Jr.
Greeley, H. P.
Greene, H. L.
Grumke, E. H.
Guilford, H. M.
Harper, C. A.
Harper, C. S.
Harris, J. W.
Henika, G. W.
Hill, N. A.
Hurlbut, J. A.
Hyslop, V. B.
Jackson, A. S.
Jackson, J. A., Jr.
Jackson, R. H.
Jerome, J. T.
Johnson, H. Curtis
Juster, E. M.
Kay, H. M.
Keck, E. B.
Kleinpell, W. C.
Krehl, W. H.
Kurtz, C. M.
Lacke, C. L.
Lee, J. H.
Lemmer, K. E.
Leonard, T. A., Jr.
Lewis, C. N.
Lindsay, W. T.
Littig, L. V.
Lorenz, W. F.
Maloof, G. J.
Marsden, W. H.
Marsh, H. E.
Masten, M. G.
McCormick, S. A.
McDonough, K. B.
McGary, Lester
McIntosh, R. L.
Meanwell, W. E.
Meyer, O. O.
Middleton, W. S.
Montgomery, R. C.
Mowry, W. A.
Neff, E. E.
Nelson, O. O.
Nesbit, M. E.
Nesbit, W. M.
Neupert, C. N.
Newman, Robert
Noer, R. J.
Paul, L. W.
Pearson, C. R.
Pessin, S. B.
Pohle, E. A.
Puestow, K. L.
Purcell, H. E.
Quisling, A. A.
Quisling, G. D.
Quisling, R. A.
Quisling, Sverre
Reese, H. H.
Reineking, W. C.
Reznichek, C. G.
Ritchie, Gorton
Robbins, J. H.
Schmidt, E. R.
Schneiders, E. F.
Schubert, C. K.
Schwittay, A. M.
Sevringhaus, E. L.
Shulak, Irving
Sisk, I. R.
Sisk, J. N.
Smith, K. W.
Sprague, L. V.
Stebbins, G. G.
Stebbins, W. W.
Stehr, A. C.
Stiehm, R. H.
Stovall, W. D.
Sullivan, A. G.
Sullivan, E. S.
Supernaw, J. S.
Taylor, F. B.
Tenney, H. K.
Thomas, N. G.
Thornton, M. J.
Tormey, A. R.
Tormey, T. W.
Van Riper, H. E.
Vingom, C. O.
Virgin, H. W.
Washburne, A. C.
Waters, R. M.
Wear, J. B.
Weiland, H. P.
Welke, E. G.
Werrell, W. A.
Weston, F. L.
Wheeler, R. M.
Williams, D. L.
Winn, H. N.
Wirig, M. H.
Wirka, H. W.

Manawa:
Irvine, R. K.
Irvine, W. J.

Manitowoc:
Aldridge, H. W.
Andrews, M. P.
Bonner, N. A.
Donohue, W. E.
Erdmann, N. C.
Gregory, L. W.
Hammond, F. W.
Hammond, R. W.
Harris, C. F.
Hoffman, G. M.
MacCollum, C. L. R.
Meany, J. E.
Rauch, W. A.
Rees, T. H.
Scherping, W. H.
Schneck, Nathan
Shimek, A. J.
Steckbauer, J. W.
Strong, R. G.
Stueck, A. F.
Teitgen, Arthur
Turgasen, F. E.
Wilson, N. M.

Marathon:
Barber, J. L.
Kampine, C. E.

Maribel:
May, J. H.

Marinette:
Berglund, S. A.
Bird, M. D.
Boren, C. H.
Boren, J. W.
Duer, G. R.
Jorgenson, H. L.
May, J. V.
Nadeau, A. T.
Pinegar, K. G.
Redelings, T. J.
Schroeder, H. F.
Shaw, R. W.

Marion:
Mulvaney, F. M.
Van Schaick, R. E.

Markesan:
Blewett, M. T.
Pfisterer, F. W.

Marshfield:
Baldwin, R. S.
Boeckmann, F. A.
Copps, L. A.
Deltchman, M. M.
Doege, K. H.
Doege, P. F.
Epstein, S. E.
Hipke, Wm.
McCormick, G. L.
Millard. A. L.
Phillips, A. H.
Potter, R. P.
Sexton, W. G.
Vedder, C. A.
Vedder, H. A.
Vedder, J. B.

Mattoon:
Partridge, O. F.

Mauston:
Hess, J. S., Jr.
Hess, J. S., Sr.

Mayville:
Bachhuber, A. E., Sr.
Bachhuber, F. G.

Mazomanie:
Schultz, I.

Medford:
Elvis, E. B.
Norton, D. M.
Nystrum, L. E.
Nystrum, R. C.

Mellen:
Lockhart, C. W.

Melrose:
Lavine, I. H.

Menasha:
Corry, F. M.
Forkin, G. E.
Jensen, F. G.
O'Brien, P. T.
Pratt, G. N.
Skibba, J. P.

Mendota:
Green, M. K.
Sauthoff, Aug.

Menomonee Falls:
Burkhardt, E. W.
Domann, W. G.
Schloemer, A. J.

Menomonie:
Butler, F. E.
Grannis, I. V.
Halgren, J. A.
Long, D. T.
Lumsden, Wm.
Quilling, P. A.
Steves, B. J.

Mercer:
Kremers, A.

Merrill:
Austria, W. F.
Bayer, L. J.
Bayer, W. H.
Hinckley, H. G.
Kelley, F. L.
Lane, F. C.
Morris, K. A.
Ravn, Bjarne
Ravn, E. O.

Middleton:
Allen, C. F.

Milltown:
Bergstrom, L. V.

Milton:
Crosley, G. E.
Davis, M. D.

Milwaukee:
Ackermann, Wm.
Adamkiewicz, J. J.
Allebach, H. K. B.
Allen, L. L.
Altenhofen, A. R.
Ansfield, D. J.
Ansfield, M. J.
Armbruster, J. L.
Augur, Alexander
Ausman, D. C.
Aylward, T. J.
Bach, E. C.
Bach, J. A.
Bach, M. J.
Bach, R. J.
Backus, E. A.
Baer, C. A.
Baker, V. L.
Baranowski, S. A.
Bardenwerper, H. E.
Barnes, H. A.
Barnes, J. S.
Barrock, J. J.
Barta, E. F.
Barth, G. P.
Baugh, C. W.
Baum, E. L.
Baumgart, C. H.
Beckman, Harry
Beebe, C. S.
Belknap, E. L.
Bellehumeur, C. E.
Benton, R. W.
Bentzein, E. W.
Bergen, R. D.
Bergner, O. L.
Bernhard, L. A.
Bernhart, E. L.
Bickler, E. P.
Biller, S. E.
Birk, B. J.
Blair, J. F.
Blount, W. P.
Blumenthal, R. W.
Bodden, A. M.
Boerner, R. W.
Bork, A. L.
Borman, M. C.
Bornstein, S. L.
Bourne, N. Warren
Brah, A. J.
Brehm, P. A.
Brey, P. F.
Brizard, J. L.
Brook, J. J.
Brown, G. V. I.
Brown, S. V. I.
Bruins, Dirk
Brumbaugh, E. V.
Brunkhorst, R. O.
Bruns, D. H.
Brussock, W. A.
Burbach, T. H.
Bussewitz, M. A.
Byrnes, M. B.
Cahana, S.
Calian, P. L.
Cannon, H. J.
Carey, E. J.
Carhart, G. A.
Carl, E. E.
Carson, W. J.
Casper, W. T.
Cavaney, J. J.
Champney, R. D.
Chapman, V. A.
Charles, J. D.
Churchill, Bernard P.
Clasen, E. A.
Cleary, E. M.
Cleveland, David
Coffey, C. J.
Colgan, J. J.
Conroy, C. F.
Conway, J. P.
Cook, E. F.
Cook, H. E.
Corcoran, C. J.
Cowan, I. I.
Craite, E. J.
Cron, R. S.
Crottier, C. J.
Currer, P. M.
Curtin, J. G.
Cushing-Lippitt, E.
Dalton, R. J.
Darling, F. E.
Darling, F. E., Jr.
Darling, W. S.
Davelaar, G. W.
Dearholt, H. E.
Decker, H. G.
Demeter, N. D.
de Neveu, A. V.
De Nosaquo, S.
Derse, F. R.
Deysach, L. J.
Dieterle, J. O.
Dietz, R. J.
Differt, C. C.
Dishmaker, M. C.
Doerr, August
Dorpat, Louis
Dorr, A. M.
Drew, F. E.
Drexel, Arnold
Drles, Joseph
Dundon, J. R.
Dunker, G. O.
Dunn, C. F.
Dunst, C. G.
Durner, U. J.
Dvorak, H. J.
Eberbach, C. W.
Echols, C. M.
Edelman, Elsa
Egan, W. J.
Eisenberg, E.
Eisenberg, J. J.
Eisenberg, L. A.
Eisenberg, P. J.
Elconin, D. V.
Enright, J. A.
Enzer, Norbert
Epperson, P. S.
Ernst, G. R.
Evans, C. A.
Evans, E. P.
Everts, E. L.
Fabric, B. L.
Farrell, F. R.
Farrell, H. J.
Fechter, F. J.
Federspiel, M. N.
Feldt, R. H.
Fellman, G. H.
Fernan-Nunez, M.
Festerling, E. G.
Fetherston, J. P.
Fidler, Charles
Fisher, Laura M.
Fitzgerald, G. F.
Fitzgerald, R. E.
Fitzgibbon, Wm.
Fletcher, E. A.
Foerster, H. R.
Foerster, O. H.
Foley, L. J.
Fons, J. W.
Ford, W. B.
Fortier, C. A. H., Jr.
Fox, G. W.
Fox, M. J.
Franklin, E.
Franklin, I.
Franklin, S. N.
Frey, P. G.
Friedman, G. H.
Frisch, R. A.
Froelich, J. A.
Fromm, A. H.
Fuerstenau, L. A.
Gabor, M. E.
Gaenslen, F. J.
Galasinski, R. E.
Garens, R. W.
Garland, J. G.
Garvey, J. L.
Gebhard, U. E.
Gendlin, N. A.
Gertenbach, E. O.
Gilchrist, R. T.
Gilmer, L. T.
Gingrass, R. P.
Goldberg, Nathan
Goodsitt, A. H.
Gorder, A. C.
Gordon, J. S.
Grab, J. A.
Gramling, E. H.
Gramling, Frances
Gramling, H. J.
Gramling, J. J.
Gray, A. W.
Gray, W. K.
Greenthal, R. M.
Griffith, J. C.
Grill, John
Grimm, J. J.
Grob, A. R. F.
Grosskopf, E. C.
Grossmann, L. L.
Grotjan, W. F.
Grove, W. E.
Gudex, V. A.
Guerin, L. H.
Gumerman, G. J.
Gute, E. B.
Guzzetta, Denis
Guzzetta, M. M.
Guzzetta, V. J.
Habbe, J. E.
Habeck, E. A. W.
Hackett, J. H.
Haessler, Bertha T.
Haessler, F. H.
Hagerman, F. H.
Hake, C. B.
Hall, R. M.
Hankwitz, A. W.
Hankwitz, P. G.
Hannen, P. H.
Hansen, A. C.
Hansen, H. T.
Hansen, J. W.
Harder, H.
Hardgrove, M.
Hardy, C. F.
Hargarten, L. J.
Harlow, G. A.
Harper, C. W.
Harrington, E. T.
Harrington, T. L.
Haug, J. F.
Haushalter, H. P.
Haushalter, L. E.
Heeb, H. J.
Hefke, H. W.
Heidner, F. C.
Heifetz, E. C.
Heise, H. A.
Henes, E., Jr.
Heraty, J. A.
Herner, W. L.
Herschensohn, H. L.
Hertel, A. J.
Higgins, S. G.
Hilger, W. A.
Hiller, R. I.
Hiller, S. J.
Hipke, G. A.
Hipke, L. W.
Hitz, H. B.
Hitz, J. B.
Holbrook, A. A.
Holbrook, A. T.
Hood, A. J.
Horwitz, J. J.
Houghton, W. J.
Howard, T. J.
Hoyt, Geo. E.
Huber, H. H.
Hughes, J. R.
Hume, W. W.
Huston, John
Irwin, Robert
Jackson, Edw.
Jacobson, E. B.
Jefferson, R. A.
Jekel, J. M.
Jenner, J. A.
Jermain, W. M.
Jobse, W. P.
Johnson, C. G.
Johnson, Frances
Johnson, H. W.
Johnston, T. L.
Joseph, W. A.
Judge, T. A.
Jurss, C. D.

Kahn, Joseph
Kastner, A. L.
Kearns, W. M.
Kelly, G. F.
Kennedy, W. R.
Kettelhut, E. J.
Killan, A. D.
Kilkenny, G. S.
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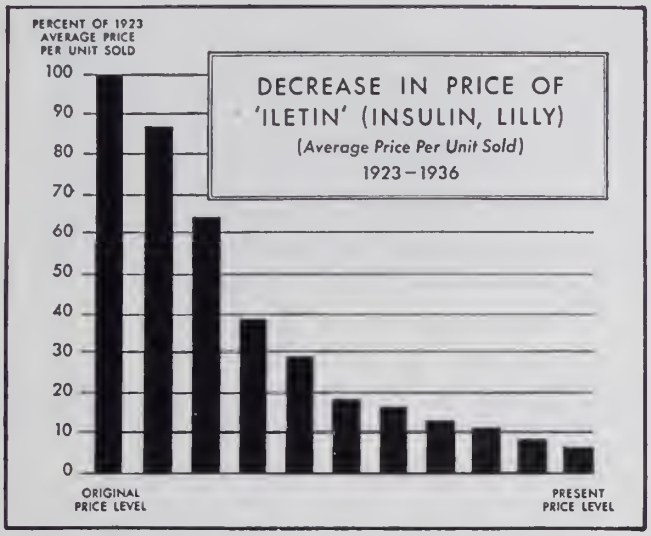

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THE JOURNAL BOOKSHELF

BOOKS RECEIVED FOR REVIEW

Modern Treatment and Formulary. By Edward A. Mullen, M.D., assistant professor pharmacology and physiology, Philadelphia College of Pharmacy and Science. F. A. Davis Company, Philadelphia, 1936.

Pathology. By Eugene Piette, M.D., pathologist and director of the clinical laboratories of the West Suburban Hospital, Oak Park, Illinois; assistant professor of pathology, College of Medicine, University of Illinois, Chicago. Second edition. F. A. Davis Company, Philadelphia, 1936. Price $1.75.

Applied Dietetics. By Sanford Blum, M.D., head of department of pediatrics, and director of research laboratory, San Francisco Polyclinic and Post Graduate School. F. A. Davis Company, Philadelphia, 1936.

Allergic Diseases. By R. M. Balyeat, M.D., associate professor of medicine and lecturer on diseases due to allergy, University of Oklahoma Medical School; director, Balyeat Hay Fever and Asthma Clinic. Assisted by Ralph Bowen, M.D., chief of pediatric section, Balyeat Hay Fever and Asthma Clinic, Oklahoma City, Oklahoma. Fourth edition, revised and enlarged. F. A. Davis Company, Philadelphia, 1936. Price $6.00.

Practice of Medicine. By Jonathan Campbell Meakins, M.D., professor of medicine and director of the department of medicine, McGill University; physician-in-chief, Royal Victoria Hospital, Montreal. By C. V. Mosby Company, 1936. Price $10.00.

Snow on Cholera. Reprint of Two Papers. By John Snow, M.D., with a biographical memoir by B. W. Richardson, M.D. The Commonwealth Fund, New York, 1936. Price $2.50.

Year Book of General Medicine, 1936. Edited by George F. Dick, M.D., Lawrason Brown, M.D., and others. The Year Book Publishers, Chicago. Price $3.00.

Nutritive and Therapeutic Values of the Banana. By research department, United Fruit Company, Boston, Massachusetts, 1936.

Medical Classics. Compiled by E. R. Kelly, M.D., department of surgery, Albany Medical College. The Williams & Wilkins Company, Baltimore, Maryland.

Keeping Your Child Normal. By Bernard Sachs, M.D., director of child neurology research, New York. Paul B. Hoeber, Inc., New York, 1936. Price $1.50.

Bright's Disease and Arterial Hypertension. By W. J. Stone, M.D., clinical professor of medicine, school of medicine, University of Southern California, Los Angeles. W. B. Saunders Company, 1936. Cloth, $5.00.

The Medical Clinics of North America. Vol. 20. Number 2. St. Louis Number. W. B. Saunders Company, Philadelphia, 1936. Paper, $12.00; Cloth, $16.00.

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A.M.A. Council on Pharmacy and Chemistry Reports, 1935. American Medical Association, Chicago, 1935.

Bailey's Textbook of Histology. By Philip E. Smith, Ph.D., editor, professor of anatomy, and others, of the College of Physicians and Surgeons, Columbia University. Ninth edition. William Wood & Company, 1936. Price $6.00.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Medical Library Service, 424 N. Charter Street, Madison, Wis.

Modern Treatment of Diseases of the Respiratory System. By A. Lisle Punch, M. D., senior physician, Royal Northern Hospital, and F. A. Knott, M. D., director of bacteriological department and lecturer in bacteriology to medical and dental schools, Guy's Hospital. P. Blakiston's Son and Co., Inc., Philadelphia, 1936. Price $5.00.

This text is a very concentrated review of the more recent developments in the field of respiratory diseases. Indeed, its brevity rather presages some of the difficulties which become apparent as one carefully follows the text. The ground covered is so extensive as to imply compendious consideration only. Yet at times such subjects as the surgery of pulmonary tuberculosis may receive very complete consideration to the neglect of other equally important subjects.

It is eminently unfair to cite detailed faults such as the advice on vaccines, the inclusion of proprietary and discarded drugs, alcohol in the treatment of tuberculosis, and prescriptions containing in the same formula Latin and English terms, without, at the same time, pointing out the extremely practical order of the text. Again, it is difficult to accept the advantages of the open fire, pleasant though it may be, over the more modern, air-conditioned methods of heating in vogue in this country. One is interested to find the cricothyroid route still suggested in the injection of lipidol into the bronchial tree. The authors have overlooked the work of Quinn and Meyer upon the relationship of suppurative sinusitis to bronchiectasis. Indeed, no mention is made of this mechanism of pathogenesis.

In general, the section on the newer surgical procedures relating to pulmonary affections is quite commendable. A strong case is made for the use of transfusions in the treatment of patients with pleuropulmonary affections, particularly where surgery is under advisement.

In addition to the distasteful use of abbreviations, one would take exception to the reference to the Virginia Prune," instead of the wild cherry. Pneumothorax is suggested in the treatment of pleurisy on page 127. Coramine and camphor are advised as cardiac supports, on page 130. No mention of the quality of the pulmonic second sound as a guide to the competency of the right heart is found. Intranasal oxygen is discussed, and its inefficacy assured by a very careful diagram (figure 16), which places the nasal catheter in the nasopharynx, rather than the correct position in the oropharynx. Carbon dioxide is suggested in the treatment of massive collapse of the lung, although there is no assurance that it can do any good whatever; but bronchoscopic aspiration is reserved for the fractious cases, when in the judgment of many of the workers in this field it should be utilized as the method of first choice. One is disappointed to observe such a superficial error as noted in the first sentence under pulmonary infarction. Thrombosis is probably a more frequent cause of infarction than is embolism. Plate 62, facing page 190, is cited as an example of first stage of silicosis, but the isolated nodules indicate a transition to the early second stage. Exception is taken to the points mentioned in the differential diagnosis of asbestosis and silicosis, on page 191.

The reviewer has some qualms in calling attention to these minor exceptions, but in most instances such differences are in detail rather than in vital subject matter. For its form and scope in a very large field, the text should rceommend itself particularly to the student, although it may find a place of usefulness in the hands of the general practitioner. For the specialist in diseases of the respiratory system, it will lack the usefulness and authority that would be carried in a volume of more exhaustive order properly documented by adequate references. W. S. M.

A Textbook of Pharmacology and Therapeutics. By Arthur R. Cushny, M. D., late professor of materia medica and pharmacology in the University of Edinburgh, C. W. Edmunds, M. D., professor of materia medica and therapeutics and director of the pharmacological laboratories in the University of Michigan, and J. A. Gunn, M. D., professor of pharmacology and director of the Nuffield Institute for medical research, University of Oxford, Oxford, England. Eleventh edition, revised. Lea & Febiger, Philadelphia, 1936. Price $6.50.

The eleventh edition of this widely used textbook has been revised to conform with the U.S.P. XI. An attempt to present the subject matter in a more intelligible and logical fashion has been made, and to this end, the authors have grouped the drugs on the basis of either chemical, pharmacological or therapeutic similarity, depending upon which classification appears to be the most desirable from a practical viewpoint. Additions and modifications have brought the book into line with the majority of the advances in pharmacological knowledge which have occurred during the three-year period since the last revision.

M. H. S.

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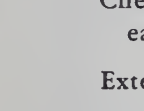

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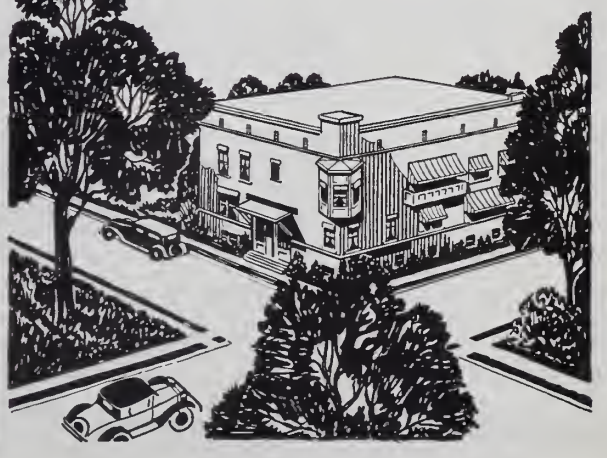

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